22.05 PLANNING FOR BUSHFIRE PROTECTION

/ /20
C44

This policy applies to all land in the Shire.

Policy basis

Bushfire poses a significant threat to life and property in Murrindindi Shire. The Shire was severely impacted by the February 2009 'Black Saturday' bushfires with 106 lives lost, over 40 percent of the Shire burnt, and over 1,200 homes destroyed. The bushfires had a significant social, economic and environmental impact on the community.

The bushfire hazard in the Shire is characterised by extensive forested vegetation on both private and public land. When combined with steep sloping topography (particularly in areas of the Great Dividing Range in the southern part of the Shire) and adverse weather conditions, there is a high risk of extreme bushfire behaviour comprising fast moving crown fires (fire in the tops of trees), significant radiant heat and extreme ember attack.

The *Regional Bushfire Planning Assessment* (Hume Region, 2011) identifies that the bushfire hazard is most significant in the southern part of the Shire where settlements and homes are dispersed and located within or adjoining large areas of continuous forest, the topography steep and vehicle access can be difficult. The bushfire hazard is less significant in the northern areas of the Shire, although some larger areas of forested land and grasslands still pose a risk.

Strengthening the community's resilience to bushfire is a key objective for planning decision-making in the Shire. This is achieved by applying the State and local planning policy objective and strategies for bushfire to recovery activities and rebuilding following the Black Saturday bushfires, land use and development, and the strategic and settlement planning for the Shire.

Objectives

The objectives of this policy are:

- To facilitate the orderly and safe recovery and rebuilding of communities following Black Saturday bushfires.
- To strengthen community resilience to bushfire by ensuring that bushfire protection measures are considered and given effect to in decision making.
- Ensure that decisions on strategic and settlement planning prioritise the protection of human life over other policy considerations and apply the precautionary principle when assessing the risk to life, property and community infrastructure from bushfire.

Policy

It is policy that:

- Planning decisions support the recovery and rebuilding of communities affected by the 2009 bushfires, including the rebuilding of destroyed homes and damaged infrastructure and re-establishing vibrant commercial centres and opportunities for local employment.
- All land within the Shire which may be subject to extreme bushfire behaviour is included within the Bushfire Management Overlay.
- In areas affected by a bushfire hazard all new use and development is located, designed and managed to reduce the risk to human life, property and community infrastructure from bushfire to an acceptable level, including through:
  - Considering the likely bushfire behaviour on a site and in the wider landscape.

- Considering the condition, location and route of available vehicle access and their suitability for safe and efficient egress before and during a bushfire.
- Maximising the bushfire protection in the siting of new development, including locating new buildings at the base of slopes or on gentle south or south-east facing slopes and discouraging the siting of buildings on north or north-west facing slopes.
- Ensuring all development can provide necessary bushfire protection measures, including through the design and construction of buildings, the creation of defendable space, the provision of a dedicated fire fighting water supply and the need for fire authority access to and on the land.
- The ability to implement and maintain necessary bushfire protection measures in conjunction with the on-going use of the land.

- Expansion of existing settlements, new subdivisions and uses which cater for vulnerable people only proceed where:
  - The risk to life, property and community infrastructure from bushfire is reduced to an acceptable level.
  - The need for future occupants to implement and maintain bushfire protection measures is minimised through the careful location, siting and design of new development.
  - The views of the relevant fire authority and, where relevant, public land managers are sought and taken into account in decision-making.
  - The views of the Municipal Fire Prevention Committee are sought on the potential risk to life, property and community infrastructure from bushfire, the ability to reduce the risk to an accept level through fire prevention activities, and the on-going resources that will be necessary to maintain those activities in conjunction with the on-going use of the land.
  - Emergency management arrangements are considered in consultation with the relevant authorities and can be practically established and implemented, including through the actions of the emergency services, operators and future land owners. This includes the ability for people to access safer locations and locations of last resort.
- The future urban growth within the Shire is directed to lower risk locations having regard to strategic and settlement planning in a regional, sub-regional, municipal and local context.

Decision Guidelines

Before deciding on an application to use or develop land the responsible authority will consider:

- The bushfire hazard on the land and in the surrounding landscape and the level of risk it poses to human life, property and community infrastructure.
- Whether necessary bushfire protection measures can be established and maintained in conjunction with the ongoing use of the land, including any mechanisms required to achieve this.
- Any relevant approved State, regional and Shire fire prevention plans.

References

- Murrindindi Fire Prevention Plan, as amended.
- *Regional Bushfire Planning Assessment*, Hume Region (2011), Department of Planning and Community Development.

Planning and Environment Act 1987

MURRINDINDI PLANNING SCHEME

AMENDMENT C44

EXPLANATORY REPORT

Who is the planning authority?

This amendment has been prepared by the Minister for Planning, who is the planning authority for this amendment.

Land affected by the amendment

The amendment applies to the whole of the Murrindindi Shire.

What the amendment does

The amendment implements a key recommendation of the 2009 Victorian Bushfires Royal Commission to incorporate bushfire risk management in planning for rebuilding communities by amending local strategies and policies and including new Clause 22.05, *Planning for Bushfire Protection* into the scheme.

Strategic assessment of the amendment

- **Why is the amendment required?**

The amendment is required to facilitate new directions for bushfire risk and management in the Murrindindi Planning Scheme. The amendment implements the following key recommendation of the 2009 Victorian Bushfires Royal Commission to incorporate bushfire risk management in planning for rebuilding communities:

> *Recommendation 45:*
>
> *The State press municipal councils—in particular, Murrindindi Shire Council—to urgently adopt a bushfire policy in their Local Planning Policy Framework and incorporate bushfire risk management in their planning policies and strategies for rebuilding communities such as Marysville, Kinglake and others affected by the January–February 2009 fires.*

Changes facilitated through the amendment will provide the following outcomes:

- Clause 21.02, Municipal vision: Amends Clause 21.02 to enhance bushfire risk assessment and protection considerations.
- Clause 21.03, Issues affecting the shire: Amends Clause 21.03 to enhance bushfire risk assessment and protection considerations.
- Clause 21.07, Serviced townships strategies: Amends Clause 21.07 to enhance bushfire risk assessment and protection considerations, including application of the BMO in areas where there is potential for extreme bushfire behaviour.
- Clause 21.08, Kinglake strategies: Amends Clause 21.08 to enhance bushfire risk assessment and protection considerations, including application of the BMO in areas where there is potential for extreme bushfire behaviour.

- Clause 21.09, Other townships strategies: Amends Clause 21.09 to enhance bushfire risk assessment and protection considerations, including application of the BMO in areas where there is potential for extreme bushfire behaviour.
- Clause 22.03, Townships: Amends Clause 22.03 to enhance bushfire risk assessment and protection considerations in subclause 22.03.1, Urban areas, and make minor editing changes in other subclauses.
- Clause 22.05: Inserts new Clause 22.05, *Planning for Bushfire Protection*, into the Murrindindi Planning Scheme to guide the consideration of applications for planning permit. The policy enhances bushfire risk assessment and protection considerations generally, with specific objectives to facilitate bushfire recovery, strengthen community resilience to bushfire and prioritise the protection of human life.

- **How does the amendment implement the objectives of planning in Victoria?**

The amendment implements the objectives of planning in Victoria as outlined in Section 4 of the *Planning and Environment Act 1987* through:

- Providing for the fair, orderly, economic and sustainable use and development of land.
- Providing for the protection of natural and man-made resources.
- Securing a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria.
- Enhancing employment, community and residential living opportunities for the land and area.
- Protect public utilities and other assets and enable the orderly provision and coordination of public utilities and other facilities for the benefit of the community.
- Balance the present and future interests of all Victorians.
- Ensuring sound, strategic planning and co-ordinated action at State, regional and municipal levels.
- Enabling land use and development planning and policy to be easily integrated with environmental, social, economic, conservation and resource management policies at State, regional and municipal levels.
- Facilitating development that achieves the objectives of planning in Victoria and planning objectives set up in planning schemes.

- **How does the amendment address the environmental effects and any relevant social and economic effects?**

Environmental effects:

The amendment will have no significant effect on the environment or the environment on the use or development envisaged in the amendment. The amendment will have positive effects on the environment through:

- Limiting development potential in severely fire affected areas, land with remnant native bushland cover and areas with natural land hazards.
- Provision of an appropriate level of environmental assessment and protection in planning land use and development in areas subject to high bushfire risk.

Social and economic effects:

Overall, the amendment is expected to have positive social and economic benefits for landowners and the general community. The amendment will enhance social and economic benefits and well-being through:

- Prioritisation of the protection of human life in planning in bushfire affected communities.
- Strengthening community resilience to bushfire.
- Facilitating recovery and rebuilding in areas severely affected by the February 2009 bushfires.
- Integrating bushfire risk management in land use planning, ensuring an acceptable bushfire risk level to life and property.
- Protection of economic assets and minimising economic damage through fire in areas subject to high bushfire risk.

- **Does the amendment address relevant bushfire risk?**

The amendment addresses bushfire risk as it:

- Directly implements a key recommendation of the 2009 Victorian Bushfires Royal Commission to incorporate bushfire risk management in planning for rebuilding communities.
- Amends local strategies and policies to enhance bushfire risk assessment and protection considerations, facilitate bushfire recovery, strengthen community resilience to bushfire and prioritise the protection of human life.
- Further implements and complements state and local planning policy framework directions and planning controls in the for land use planning in bushfire prone areas.

- **Does the amendment comply with the requirements of any Minister's Direction applicable to the amendment?**

The amendment complies with all Minister's Directions under Section 12 of the Planning and Environment Act 1987.

The amendment complies with Minister's Direction No 11, *Strategic Assessment of Amendments*. All requirements to be met under the direction have been considered and met in the preparation of the amendment. The amendment is not affected by any other Minister's Direction.

The amendment is consistent with the Ministerial Direction on the Form and Content of Planning Schemes under section 7(5) of the Act.

No other Minister's Direction is directly affected by the amendment.

- **How does the amendment support or implement the State Planning Policy Framework?**

The amendment complies with and implements the State Planning Policy Framework of the Murrindindi Planning Scheme. In particular, the amendment implements:

<u>Clause 13, Environmental risks:</u>

- Clause 13.05, Bushfire:

  Clause 13.05-1, Bushfire planning strategies and principles:

  Objective:

  To assist to strengthen community resilience to bushfire.

  Strategies include:

  Overarching strategies

Prioritise the protection of human life over other policy considerations in planning and decision-making in areas at risk from bushfire.

Where appropriate, apply the precautionary principle to planning and decision-making when assessing the risk to life, property and community infrastructure from bushfire.

Bushfire hazard identification and risk assessment strategies

Identify in planning schemes areas where the bushfire hazard requires that:

- *Consideration needs to be given to the location, design and construction of new development and the implementation of bushfire protection measures.*
- *Development should not proceed unless the risk to life and property from bushfire can be reduced to an acceptable level.*

Strategic and settlement planning strategies

Ensure that strategic and settlement planning assists with strengthening community resilience to bushfire.

Ensure that planning to create or expand a settlement in an area at risk from bushfire:

- *Addresses the risk at both the local and broader context.*
- *Reduces the risk to future residents, property and community infrastructure from bushfire to an acceptable level.*
- *Ensures any biodiversity and environmental objectives specified in the planning scheme are compatible with planned bushfire protection measures.*
- *Ensures the risk to existing residents, property and community infrastructure from bushfire will not increase as a result of future land use and development.*
- *Ensures future residents can readily implement and manage bushfire protection measures within their own properties.*

Planning scheme implementation strategies

Specify in planning schemes the requirements and standards for assessing whether the risk to a proposed development from bushfire is acceptable and the conditions under which new development may be permitted.

Ensure that planning schemes, in particular the Municipal Strategic Statement, Local Planning Policies and zones applying to land, provide for use and development of land in a manner compatible with the risk from bushfire.

Ensure that planning schemes support bushfire management and prevention and emergency services actions and activities.

Ensure that planning schemes do not prevent the creation of required defendable space around existing development through the removal and management of vegetation.

Development control strategies

In areas identified in the planning scheme as being affected by the bushfire hazard, require a site-based assessment to be undertaken to identify appropriate bushfire protection measures for development that has the potential to put people, property or community infrastructure at risk from bushfire.

Only permit new development where:

- *The risk to human life, property and community infrastructure from bushfire can be reduced to an acceptable level.*

- *Bushfire protection measures, including the siting, design and construction of buildings, vegetation management, water supply and access and egress can be readily implemented and managed within the property.*
- *The risk to existing residents, property and community infrastructure from bushfire is not increased.*

- **How does the amendment support or implement the Local Planning Policy Framework?**

The amendment complies with and implements the Local Planning Policy Framework of the Murrindindi Planning Scheme. In particular, the amendment implements:

Clause 21.02, Vision:

Vision includes:

Support the rebuilding of communities devastated by the 7 February 2009 bushfires.

Amendment C44 further builds on the municipal vision by integrating bushfire risk management, prioritising the protection of human life, integrating bushfire risk management, prioritising the protection of human life and minimising the risk to life and property from bushfire and ensuring an acceptable bushfire risk level to life and property.

Clause 21.03, Issues affecting the shire:

Issues include:

Rebuilding bushfire affected communities. The level of devastation of Marysville and surrounding communities necessitates commitment and support for the return of high quality, sustainable development.

Amendment C44 further identifies bushfire risk considerations by outlining the risk to life and property from bushfire.

Clause 21.07, Serviced townships strategies:

Clause 21.07 outlines strategies to rebuild Marysville form the February 2009 fires, including the implementation of the *Marysville and Triangle Urban Design Framework Report*, September 2009.

Amendment C44 further builds on bushfire considerations for serviced townships by including strategies to minimise bushfire risk to human life and property, integrating bushfire risk management in the rebuilding of communities and incorporating appropriate bushfire protection measures, including the use of the Bushfire Management Overlay in areas where there is potential for extreme bushfire behaviour.

Clause 21.08, Kinglake strategies:

Amendment C44 enhances strategies for the Kinglake area by prioritising the protection of human life, discouraging development in areas of significant bushfire risk and incorporating appropriate bushfire protection measures, including the use of the Bushfire Management Overlay in areas where there is potential for extreme bushfire behaviour.

Clause 21.09, Other townships strategies:

Amendment C44 enhances strategies for townships by including strategies to minimise bushfire risk to human life and property, integrating bushfire risk management in the rebuilding of communities and incorporating appropriate bushfire protection measures, including the use of the Bushfire Management Overlay in areas where there is potential for extreme bushfire behaviour.

Clause 22.03, Townships:

Amendment C44 enhances policies for urban areas by outlining bushfire risk, prioritising the protection of human life, discouraging development in areas of significant bushfire risk and incorporating appropriate bushfire protection measures.

- **Does the amendment make proper use of the Victoria Planning Provisions?**

The amendment makes proper use of the Victoria Planning Provisions. The amendment will change planning strategies and policies in the Murrindindi Planning Scheme. There are no alternative ways or tools to achieve these changes to the scheme other than through a formal amendment to the scheme.

Amendment to strategies and policies is the appropriate mechanism to further incorporate bushfire risk management in planning for rebuilding communities. In addition to amending strategic directions for land use planning in areas of higher bushfire risk, the new policy (Clause 22.05, *Planning for Bushfire Protection*) will guide the consideration of applications for planning permit in these areas, enhancing the consideration of bushfire risk assessment and protection in land use and development proposals.

- **How does the amendment address the views of any relevant agency?**

The amendment has been prepared in conjunction with the Department of Planning and Community Development (DPCD).

The amendment has been prepared with a view to meeting the views and guidelines of government departments, service authorities and natural resource agencies relevant to bushfire planning and risk in Murrindindi Shire.

- **Does the amendment address relevant requirements of the Transport Integration Act 2010?**

Is the amendment likely to have a significant impact on the transport system, as defined by section 3 of the Transport Integration Act 2010?

The amendment is not considered to have a significant impact on the transport system.

Are there any applicable statements of policy principles prepared under section 22 of the Transport Integration Act 2010?

There are no statements of policy principles applicable under section 22 of the *Transport Integration Act 2010*.

Resource and administrative costs

- **What impact will the new planning provisions have on the resource and administrative costs of the responsible authority?**

There will be no adverse impact on the resource and administrative costs of the responsible authority. Future planning proposals for use and development will be considered on their merits through a planning permit process, which has associated prescribed fees based on the proposal.

Where you may inspect this Amendment

The amendment is available for public inspection, free of charge, during office hours at the following places.

Department of Planning and Community Development:

www.dpcd.vic.gov.au/planning/publicinspection.

Murrindindi Shire Council
Perkins Street
Alexandra 3714

Murrindindi Shire Council
Civic Centre
Semi Circle
Yea 3717

Murrindindi Shire Council
19 Whittlesea-Kinglake Road
Kinglake 3763

Draft Murrindindi Shire and Lake Mountain Municipal Fire Management Plan

Municipal Fire Management Planning Committee 2012

Murrindindi Shire Council

lakemountain ALPINE RESORT

State Government Victoria

Preface

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 has prompted the need for increased coordination and cooperation to secure fire safety across the state.

Integrated Fire Management Planning (IFMP) is a co-coordinated whole of government approach to fire management planning in Victoria. Established under the *Emergency Management Act 1986*, IFMP is the new fire planning process being rolled out across the state at both regional and municipal level. IFMP involves fire planning with other agencies and organizations to produce a combined Municipal Fire Management Plan (MFMP) for each municipality in the Hume region.

IFMP provides a framework for consistent and effective fire management planning. To do this, it provides a multi-agency approach, bringing together fire management planners and other stakeholders, including emergency service agencies, government departments, private organizations and the community. Working together, these key stakeholders build on and create new relationships and share information to plan across both public and private land tenures for all types of fire. IFMP is based on analysis and management of risk, utilizes best practices and builds on existing information, such as the Victorian Fire Risk Register, Fire Operations and Management Plans, mitigation strategies, roadside and environmental plans, township protection plans, recovery plans etc.

The Murrindindi Shire and Lake Mountain Municipal Fire Management Planning Committee (MFMPC) formed in 2011 and include members from DSE, CFA, Murrindindi Shire Council and Lake Mountain Alpine Resort. The MFMPC is supported at a regional level by the Hume Region Strategic Fire Management Planning Committee and at a State level by the State Fire Management Planning Committee.

A key responsibility of the Murrindindi Shire and Lake Mountain MFMPC is the development of an MFMP on behalf of the Murrindindi Municipal Emergency Management Planning Committee (MEMPC), of which Lake Mountain Alpine Resort Management Board is a member. 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 Murrindindi Shire.

While the management of all types of fires is important, the plan focuses 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 planning for other types of fire. Furthermore it is important to note that this plan recognizes the extensive work already undertaken in fire management across the municipality.

Over a 12 month period, members of the MFMPC met on a regular basis to work through the necessary steps to develop this plan.

Whilst the Terms of Reference for MFMPCs are reasonably generic, the Murrindindi Shire and Lake Mountain MFMPC insisted that previous input from volunteer CFA brigades at a ‘grassroots’ level remain. To this end Murrindindi’s Municipal Fire Prevention Officer (MFPO) will continue to conduct a number of meetings with brigade delegates acting in an advisory capacity to the newly formed MFMPC.

The plan identifies a number of risks which were assessed utilising a State-derived consequence table, risk assessment matrix and likelihood matrix. The risks were then ordered with those risks to human life taking precedence. The risks included (but are not limited to):

- People living in higher risk environments such as the Kinglake Ranges, Flowerdale/King Parrot Creek Valley, Taylor bay, Marysville Triangle areas and other towns in the municipality
- Visitors to the shire during summer
- People travelling on roads
- Essential infrastructure (power, water and communications)
- Outdoor education facilities and students
- Industry and infrastructure
- Biodiversity and
- Natural assets and values

Treatments or procedures that tackle these risks directly were then assembled from all of the relevant agencies in the Municipality (see Risk Management Strategy, Section 5.3). An Action Plan (Section 5.4) was then developed to identify any gaps in the treatment of fire risk and to outline any new treatments to risk that may be planned.

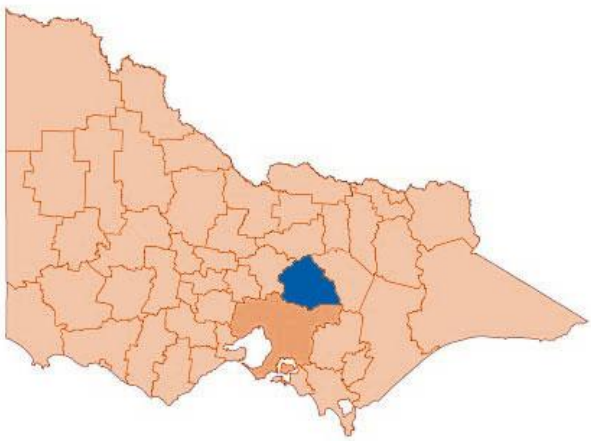
The plan includes Community Information Guides (CIGs) and Neighbourhood Safer Places (NSPs). CIGs provide a planned response for both emergency services and the community to a bushfire within close proximity to a township, with potential to impact on a local community. NSP's are a place of last resort and are available to residents if their Bushfire Survival Plan fails and they have no other place for shelter.

It is acknowledged that CIG's and NSP's are important safety and pre planning elements for the community, especially for the settlement areas that are subject to bushfire risk. CIG's and NSP's are progressively being established and will form an integral part of the Council's annual fire prevention works program considerations and future priorities.

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

Matt Parsons

Chair
Murrindindi Shire and Lake Mountain
Municipal Fire Management Planning Committee



Version Control Table

Version #	Date of issue	Author(s)	Brief description of change
Version 1.0	2/5/12	C. Hajek, C. Price	Draft MFMP for comment
Version 2.0	26/6/12	C. Price	New Edits
Version 3.0	20/7/12	C. Price	Murrindindi Shire and Lake Mountain MFMPC Meeting 4.2 Edits
Version 4.0	3/8/12	C. Price	New Maps
Version 5.0	9/8/12	M. Parsons, C. Price	New Edits
Version 5.1	28/11/12	A.Daley/C.Hajek	Edits following public comment
Version 5.2	4/12/12	C.Hajek	Replaced Fire history & Planned burning maps with updated versions & added disclaimer to beginning of attachment 7.

Authorisation

This integrated MFMP was adopted as the first iteration of the Murrindindi Shire and Lake Mountain MFMP. This Plan was endorsed through a formal motion by the Municipal Fire Management Planning Committee (MFMPC) at their meeting on 12 November 2012, for which the Chair of the committee will sign for and on behalf of all members of the Murrindindi Shire and Lake Mountain MFMPC.

Signed: _____ Date: _____ **Plan endorsed by:**

Matt Parsons
Manager Development Environmental Service
Murrindindi Shire Council
Chairperson
Murrindindi Shire and Lake Mountain MFMPC

This MFMP was endorsed as a sub plan to the Murrindindi Municipal Emergency Management Plan through a formal motion by the Murrindindi Municipal Emergency Management Planning Committee (MEMPC) at their meeting on 21 November 2012, for which the Chairperson of the committee will sign for and on behalf of the Members of the Murrindindi MEMPC

Signed: _____ Date: _____ **Plan endorsed by:**

Peter Cownley
Municipal Emergency Resource Officer
Murrindindi Shire Council

This MFMP was adopted through a formal motion by the Murrindindi Shire Council at its Ordinary Meeting of Council on ….. 2012, for which the Chief Executive Officer will sign for and on behalf of the Murrindindi Shire Council

Signed: _____ Date: _____ **Plan adopted by Council**

Margaret Abbey
Chief Executive Officer
Murrindindi Shire Council

The responsibilities and accountabilities attributed to the organisations represented by the Murrindindi Shire Council, Lake Mountain Alpine Resort and the Municipal Fire Management Planning Committee (MFMPC) are endorsed by:

Signed: _____ Date: _____ **Plan endorsed by:**

Peter Creak
Operations Manager
District 12
CFA

Signed: _____ Date: _____ **Plan endorsed by:**

Ralph Booth
Chairperson
Lake Mountain Alpine Resort Management Board

Signed: _____ Date: _____ **Plan endorsed by:**

Alan Dobson
Land and Fire Regional Manager
North East Region
DSE

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

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.

Figure 1: Fire Management Planning

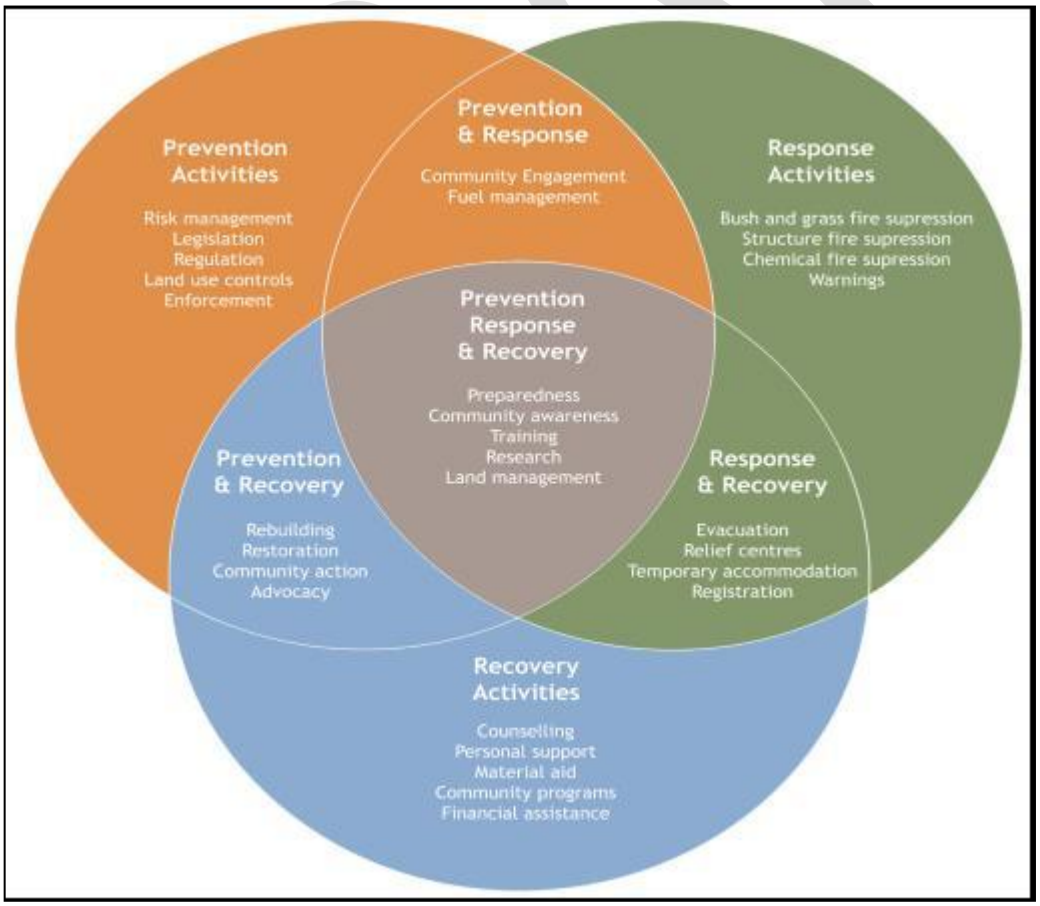
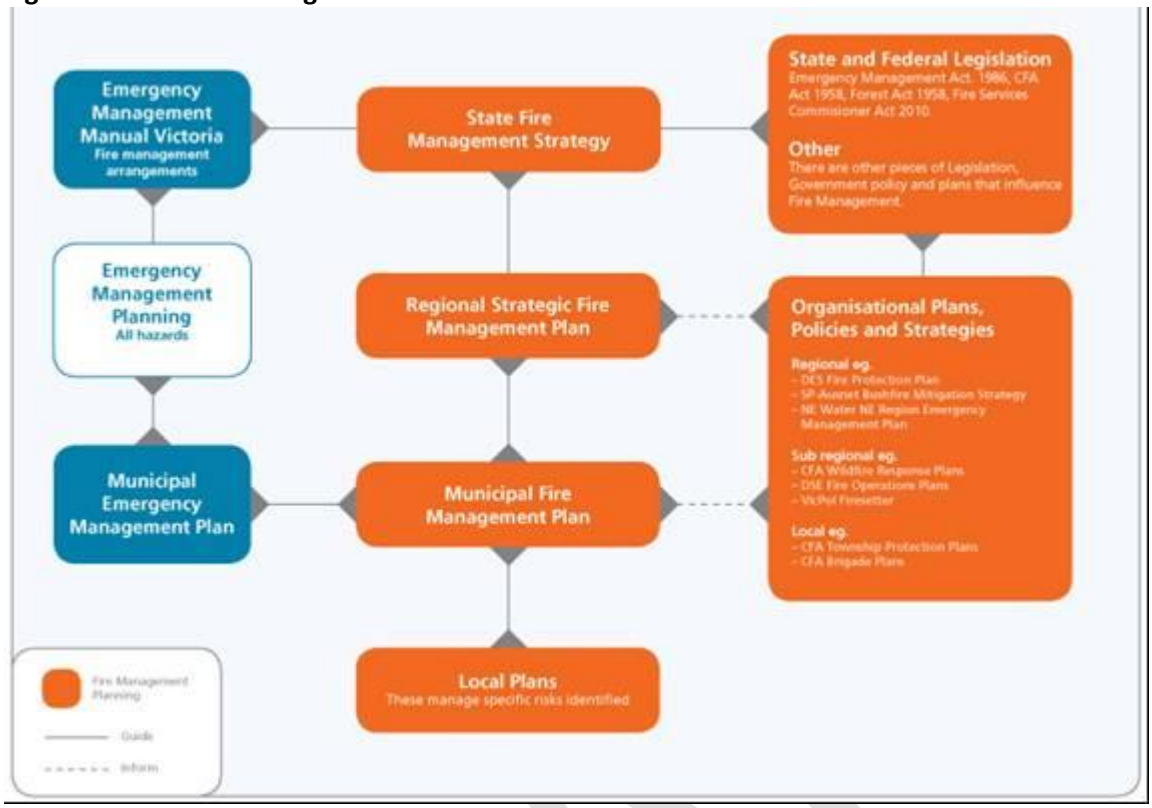


Figure 2: Victorian Management Plans and Policies



The framework provides structures, policies and procedures to help build on the existing spirit of cooperation 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 the 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.

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.

Murrindindi Shire and Lake Mountain MFMPC membership consists of:

- Murrindindi Shire Council
- Lake Mountain Alpine Resort
- CFA
- DSE

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 area 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 in the 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 commencing 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.

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 members of the committee met on a regular basis to work through the steps outlined above for the purpose of developing this plan. This commenced with formally establishing the Murrindindi Shire and Lake Mountain MFMPC as a subcommittee of the Murrindindi 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 with the municipality and assigning appropriate treatments to address them.

This planning process is risk based and aligns with the Australian Standard AS/NZS ISO 31000:2009 Risk Management – Principles and Guidelines, figure 4 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

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 directly together to ensure issues are understood	Partner in each aspect of decision making	Place final decision making in the hands primary stakeholders

2.1 Community and Organisational Engagement Plan

In accordance with the IFMP planning guide the Murrindindi Shire and Lake Mountain 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.

Figure 6: 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 1958* and the *Forest Act 1958*, DSE 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 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 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 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.

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 Murrindindi Shire and Lake Mountain MFMPC's communication and engagement efforts were focused primarily upon the key stakeholders. However a number of community groups were identified as Tertiary stakeholders and engaging with 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 Murrindindi Shire and Lake Mountain 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 may 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.

In undertaking this environmental scanning exercise, the MFMPC gathered information relevant to fire management from a wide range of sources. Data sources used included the CFA's VFRR, DSE Fuel loads and natural values, OESC Consequence of Loss and ABS IRSED. This information was interpreted using the committee's extensive knowledge and experience with fire management to make predictions, assumptions and conclusions concerning fire risk for the municipality over the period of the plan.

3.1 Municipal Profile

3.1.1 Location and Tenure

The Murrindindi Shire, located one and a half hours to the north-east of the City of Melbourne has an area of 3,889 square kilometres. It is a popular tourist area with a number of National Parks, State Parks, fertile farming land, the Goulburn River and Lake Eildon.

Murrindindi was one of the municipalities most heavily-affected by the 2009 'Black Saturday' bushfires. Approximately 40% of the Shire was burnt, which by area represented 154,355 hectares and destroyed 1397 properties.

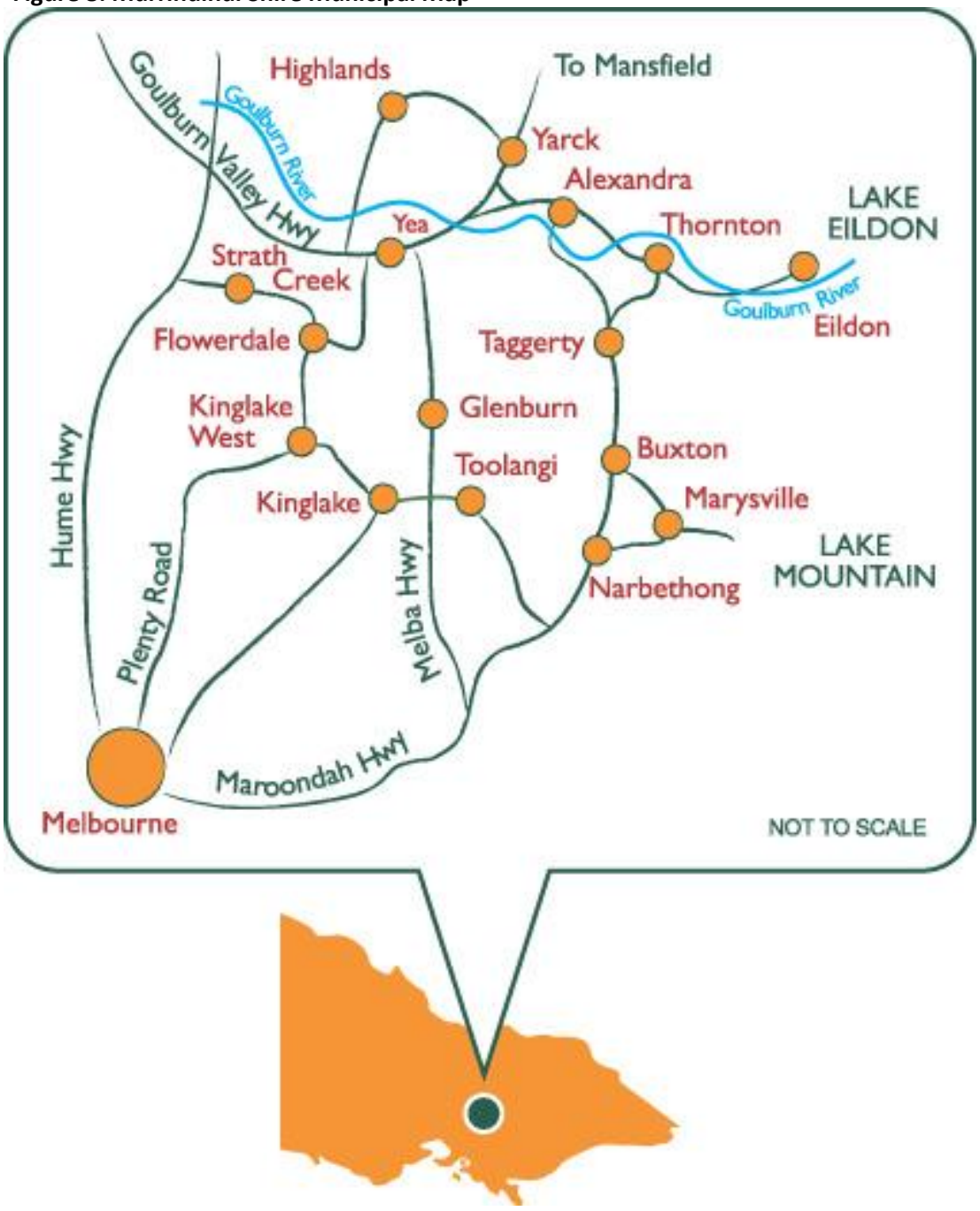
46% of the total land area of the Municipality is forested public land (1,788 square kilometres) consisting of State Forest, Parks and Reserves and other public land. A large proportion of this land is mountainous and heavily forested. The Department of Sustainability and Environment and Parks Victoria manage the

majority of this public land. Other major land holders include the Lake Mountain Alpine Resort Management Board, Murrindindi Shire Council and Hancocks Victorian Plantations.

Murrindindi Shire borders the Lake Mountain Alpine Resort who is a member of the Murrindindi Shire and Lake Mountain MFMPC. Lake Mountain Alpine Resort is located 21 kilometres east of Marysville.

The resort suffered extensive damage in the 2009 fires. It has historically been a winter resort with over 30 kilometres of cross-country skiing trails. More recently the resort has been diversifying and focusing on summer activities such as bushwalking and mountain bike riding with visitor facilities open through the summer period.

Figure 8: Murrindindi Shire Municipal Map



3.1.2 Population and Demographics

Murrindindi Shire currently has a population of 13,672 people with a density of 3.5 people per square kilometre. The Shire has a large number of 'lifestyle' properties and holiday homes, which represent approximately 30% of the Shire's rate base. At the time of the 2006 Census, 57% of the residents lived in larger serviced towns in Murrindindi Shire, with the remaining 43% living in smaller towns and rural areas.

The Shire has a number of larger township areas, being Alexandra, Yea, Marysville, Eildon and the Kinglake ranges. There are also several smaller townships with lower population densities, which include Buxton, Toolangi, Glenburn, Molesworth, Narbethong, Strath Creek, Taggerty, Thornton and Yarck.

Like many regional areas in the Hume region Murrindindi Shire has an ageing population. 18.5% of the population is over 65 and this is forecast to increase. Despite efforts to attract employment and investment in regional areas of Victoria over the last 10 years, it is estimated that Murrindindi Shire's growth forecast will remain low.

In Murrindindi Shire there is a lack of young adults, particularly in the 25-34 age group, many having left the region to pursue work or study in major regional centres or Melbourne. Main employers in the municipality include tourism, agriculture, land management and forestry. Unemployment rates have varied in the past 10 years between a low of 3.2% to a high of 5% in both 2006 and 2010.

Slightly less culturally diverse than inner Melbourne areas, 12% of the population in the shire was born overseas and 3.5% speak a language other than English at home. Over 55% of residents have access to the internet and 31% of people complete some form of unpaid voluntary work.

Murrindindi Shire is ranked 44th out of 80 local government areas in the 2006 Socio Economic Indices for Areas (SEIFA). SEIFA is a measure of social disadvantage. Lower scores indicate that the area is more disadvantaged with families having low income, low rates of training and many having unskilled occupations.

Lake Mountain Alpine Resort is the closest alpine resort to Melbourne and attracts over 200,000 visitors annually. The majority of visitors to the resort come during the winter period. There is no accommodation on the mountain and most are day visitors or seek accommodation in Marysville and surrounding area.

During the summer period, the municipality attracts large numbers of visitors, often into areas of high fire risk. These areas are predominately in and surrounding National and State Parks, which present a major ongoing challenge in relation to fire safety.

3.1.3 Natural Environment

The municipality of the Murrindindi Shire is situated in Central Victoria and is located on the north fall of the eastern section of the Victorian highlands. The topography of the shire, ranges from flat grazing land in the west, to the mountainous eastern ranges, including the alpine areas around Lake Mountain Alpine Resort. The central part of the municipality generally follows the Goulburn River valley. The terrain in eastern areas is generally hilly to mountainous, particularly south and east of Alexandra. The area has a number of national parks, state parks and reserves, which attract large numbers of visitors.

The western side of Lake Eildon and the township of Eildon are situated in Murrindindi Shire. The lake is a major tourism draw card. A large number of tourists also travel through and stay within Murrindindi Shire for its 'natural values'. Murrindindi Shire is serviced by a large number of accommodation types from Motels to caravan parks, and has many more bush camps, some of which are remote. Recreational activities include bushwalking, skiing, water sports (on Lake Eildon and the Goulburn River), camping, four –wheel driving, cycling to name a few.

Lake Mountain Alpine Resort's natural environment was heavily impacted by the 2009 bushfires. Areas of Snow Gum in the alpine zone were reduced significantly in the fires and survival rates were extremely low. It was estimated that only 2% of understorey remains unburnt in these areas. Other zones, including those with Montane Forest, dominated by Alpine Ash, cool temperate rainforest containing Myrtle Beech and Tea-Tree were also heavily impacted. The majority of Alpine Ash was killed in the fires but regeneration is occurring. Regrowth of many Myrtle Beech trees is occurring through the Montane Forests. Wetland communities comprising the heath and bog communities on the plateau and ridge tops were also heavily impacted but are slowly recovering.

Lake Mountain is also home to the endangered Leadbeaters Possum *(Gymnobelideus leadbeateri).* Unusually at Lake Mountain, the Leadbeaters Possum occupies the Snow Gum Woodlands, rather than its normal favoured environment of Alpine Ash.

Murrindindi Shire is traversed by the Goulburn River and a number of its tributaries occur in the municipality including the Rubicon River, Acheron River, Taggerty River, Steavenson River, Little Steavenson River, Yea River, Murrindindi River and the King Parrot Creek. The Goulburn and its tributaries flow from the ranges in the east and south into floodplains in the west and north with high quality soils that are used extensively for agriculture. Since the European introduction of livestock and farming into the municipality, the flood plains, grasslands and foothill valleys have been altered significantly as a result of vegetation clearing, grazing, soil compaction and the spread of weeds. Despite the prevalence of agriculture, the municipality still has some large areas of remnant vegetation in both public and private land.

A large proportion of the Shire is forested with a number of substantial parks including Kinglake, Yarra Ranges and Lake Eildon National Parks and Cathedral Range State Park. All of these parks excluding Lake Eildon National Park were heavily impacted by the 2009 bushfires. Since then many of the facilities in these areas have reopened or are being restored including infrastructure at Steavenson's falls near Marysville and trails (walking and skiing) at Lake Mountain Alpine Resort

A large section of south-eastern Murrindindi Shire is a mixture of state reserves in which 600-700 hectares of hardwood is harvested each year in clear-fell and seed-tree operations.

There are 18 distinct Ecological Vegetation Classes (EVCs) in the Murrindindi Shire. EVCs are mapping units used for biodiversity planning and conservation and include information about plant communities and forest types, ecological information about these species and variations in the physical environment such as aspect, elevation, geology solid, landforms, rainfall, salinity and climactic zones[1] .

Of the 2168 recorded plant species in the municipality, eight are listed as threatened under the Victorian *Flora and Fauna Guarantee Act 1988* (*FFG Act 1988*). Two of these are also listed as endangered under the Federal *Environment Protection and Biodiversity Conservation Act 1999* (*PBC Act 1999*).

There are 393 recorded species of native fauna across Murrindindi Shire. Of these, 42 are listed as threatened under the *FFG ACT 1988* and a further 14 listed under the *EPBC Act 1999*.

Biodiversity Action Plans (BAP) has been developed in partnership between the Department of Sustainability and Environment, the Department of Primary Industries, the Catchment Management Authorities, local government and non-government organizations. BAPs purpose is to define those areas with the highest significant biodiversity assets and determine activities with the most return on investment in biodiversity across the state. The Goulburn-Broken catchment is divided into 20 individual BAP areas or zones with corresponding conservation plans. There are 5 of these that apply to the

[1] DSE, 2008. *Climate change in Goulburn Broken*, Department of Sustainability and Environment, Victoria, Melbourne

municipality. The BAP plans, available to all agencies and land managers, will be used to guide Murrindindi Shire Council's actions regarding the conservation of high biodiversity values in the region.

3.1.4 Land use, Economy and Employment

The economy of the region revolves around tourism, forestry, mixed (traditional & intensive) styles of farming, grazing and light industry. Land use is predominantly agricultural and quite diverse, with grazing on the flatter land in the north and west. In the central areas mixed farming and hobby farming occurs including fruit, grapes, wool, olives, nurseries, turf and seed production, exotic animals (alpaca, deer and rabbits) and cattle production. There is some irrigation areas, along the Goulburn River.

Agriculture is an important industry in the municipality annually grossing $82.7 million. Agricultural land utilizes 144,000 hectares in Murrindindi Shire, which is predominantly used for the raising of animals. The Shire has over 115,000 lambs and sheep, 400 dairy cattle, and 100,000 beef cattle. Agriculture, forestry and fishing employs 12% of the Murrindindi workforce with the other predominant industries including manufacturing 10%, health and community services 10%, construction 10%, retail trade 9%, education 9%, and accommodation, restaurants and cafes 9%.

The size of farms and rural holdings is gradually declining in Murrindindi. New Agricultural trends are also emerging, which is still predominantly animal grazing, including a range of agricultural uses.

Fish production is a major industry in Murrindindi Shire with a number of fish farms and trout hatcheries. Snobs Creek Hatchery for example, breeds and grows a number of native species including Murray Cod and Golden Perch and has the only Australian population of Chinook salmon. They also breed trout and along with other trout hatcheries in Murrindindi account for 83% of the trout production in Australia. Over 1 million fish and fingerlings are released per annum from Snobs Creek Hatchery alone into Victorian rivers and waterways.

Outdoor education is an expanding sector within the shire that provides significant employment opportunities in the outdoor education/recreation community. The range of business activities includes school camps, mobile outdoor program providers, tertiary education institutions and corporate training organisations.

Murrindindi Shire is home to a number of major industries and employers such as Kinross Farm who are of national significance. Every week, Kinross Farm provides about one million "live" eggs to Melbourne company CSL, who is the only manufacturer of flu vaccines in the southern hemisphere. Located in the Kinglake region, Kinross Farm is a major employer in the Shire. Not only producing eggs for vaccines, Kinross Farm has a large commercial retail market in the production of eggs for the food industry.

HVP Plantations and a number of smaller business run commercial native hardwood extraction in State Forests and a number of softwood plantations occur throughout the area, particularly in the south and east. The closure of Demby's Toolangi Mill in 2007 followed by Gunns Timber Mill in Alexandra in 2012 caused the loss of over 50 jobs directly related to mill operations and numerous others as a result of downstream impacts. These mill closures had serious local economic impact and are symptomatic of growing viability issues within the timber sector.

The municipality is well serviced by roads. However, in the mountainous sections some of the roads are steep, narrow, restricted access and are of a lower standard. The Goulburn Valley Highway, Melba Highway and the Maroondah Highway traverse the Municipality

Lake Mountain's income is based solely on tourism. Net income was around $1.5 million in 2005 but rose to over $6.5 million in 2009. After the destruction of the resort facilities in the 2009 fires, a reduction in overall net income has been experienced by the resort.

3.1.5 Traditional Owners

The majority of Murrindindi Shire lies in the traditional territory of the *Daung wurrung* (also spelt *Taungarung*) language group, which spread across much of the central region of Victoria. It is suggested that areas in the south of the Shire, including areas of the Kinglake National Park, are located in the Traditional lands of the Wurundjeri or Woi wurrung people.

The ethnographic sources suggest that the *Daung wurrung* group was composed of nine clans, occupying the Broken, Delatite, Goulburn, Coliban and Campaspe watersheds (Barwick 1984[2]; Clark 1990[3]).

According to Clark (1990) the majority of lands in the Murrindindi Shire area appear to have been occupied by the *Yowung-illam balug* clan of the *Daung wurrung*. This clan was known to have occupied land near the Howqua River quarry (*Youang-illum* stone quarry), Mount Battery, Alexandra, the Upper Goulburn River at Mansfield, sources of the Goulburn River and Hunter and Watson's 'Wappan' Run (Clark 1990; Barwick 1984).

There is one Registered Aboriginal Party (RAP) in the area of Murrindindi 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

There is a large variance in the terrain throughout the Murrindindi Shire, resulting in several distinct microclimates. The Municipality generally enjoys a temperate climate apart from the alpine areas of Lake Mountain, with an average summer maximum temperature of approximately 29° C.

Average summer temperatures differ widely across the municipality; Alexandra has a summer maximum average of 28.6 C° and Toolangi, in the foothills to the south west, 22.2 °C. They both vary significantly from Lake Mountain which sees average summer temperatures between 6.6°C to 15.5 °C. Toolangi is generally cooler than Alexandra at any time of year although its winter minimums are milder. Winter conditions in the Alpine areas average -2.8 °C to 1.6 °C.

Prolonged drought occurred throughout the Shire in the late 1990s to 2009, followed more recently by flooding events in 2010, 2011 and 2012 causing flooding in some low lying areas. During 2000-2010 some parts of the Shire recorded up to a 30% reduction in average rainfall. Most of the rain falls occur in the winter and spring in Murrindindi Shire, with annual average rainfalls ranging from 710 mm at the Alexandra Post Office to 1363.1 mm at Toolangi. There is a large variation in rainfall in Alexandra with the lowest (346mm) rainfall recorded in 2006 and the highest in 1973 (1089 mm). Although a wetter area in general, Toolangi also has a large variance in yearly rainfall from 882.9 mm (1997) to 1826 mm (1960). The hilly and mountainous areas of the shire are consistently wetter than the lower foothills and plains.

The future climate in the greater Goulburn-Broken region is expected to become hotter and drier than it is today[4]. It is also expected that there will be a larger proportion of hotter days, fewer frosts and a greater

[2] Diane Barwick 'Mapping the Past: An Atlas of Victorian Clans 1835-1904', Part 1, *Aboriginal History* 1984, 8(2):100-31

[3] Clark, I. 1990. *Aboriginal Languages and Clans: An Historical Atlas of Western and Central Victoria*, Monash Publications in Geography No. 7.

[4] CSIRO and BOM 2012. *State of the Climate 2012*, Commonwealth Scientific and Industrial Research Organisation, Bureau of Meteorology.

incidence of drought[5]. 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

Murrindindi has a long history of fire. There have been 4 major fires in the municipality since 2000, which include the Castella (Toolangi State Forest) fires of February 2004; Mount Torbreck (State Forest) fires of April 2004, Kanumbra ("Brilliant" fire) New Year's Eve 2005, Kinglake/Glenburn-Yea/Highlands fires of late January/February 2006 and the 7 February 2009 catastrophic fires across the State. A table of the entire known fire history is shown below.

The bushfires of February 2009 had a profound effect on the Murrindindi Shire. There were 95 people killed and 1539 square kilometres, or 40% of the Shire, were burnt. The bushfire had a catastrophic impact on the communities of Murrindindi and its businesses, tourism and natural environment were severely impacted as a result. 1397 houses were destroyed as well as 3533 kilometres of fencing. Flora and fauna were also severely impacted: 5 threatened species of fauna listed under Victoria's the *Flora and Fauna Guarantee Act 1988* occur in the burnt areas, as well as three species listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

Figure 9: Fire History in Murrindindi Shire

Date	Details
1824 (Dec)	Messrs Hume & Hovell reported major fires in this area when exploring
1845 (Feb)	Fires in Yea district burnt for many days and covered large areas
1851 ("Black Thursday")	Major state-wide fires. One woman & five children burnt to death at Happy Valley, Flowerdale. Plenty Ranges badly effected
1877	Fires across Victoria particularly in timbered country
1889	Major fires in Yea district following severe flooding during prior winter / spring
1898	Bad outbreaks Narbethong, Marysville, Healesville, Kilmore, Seymour
1899	Major fires Yea, Broadford, Kilmore, Seymour
1900	Bad fires Yea & Kilmore. Yea severely threatened. This fire burnt for some weeks in Yea district
1901	Large fires Yea, Alexandra, Mansfield, Kilmore, Broadford, Longwood
1902	Outbreaks of large size Molesworth, Broadford, Kilmore
1906	Large Fires at Alexandra & Kilmore
1922 (13 Feb)	Fire originated in Highlands - Caveat area and covered significant area. Other outbreaks this year particularly in forested areas
1926	Disastrous state-wide fires; lives lost at Kinglake. Hotel, church, public hall and houses lost
1927(Feb)	Rabbit poisoners started fire in Highlands area which burned to Cathkin. Stopped on north side of Goulburn River
late 1920's	Outbreak started near Alexandra. Burnt through hilly country north of the Goulburn to

[5] DSE, 2008. *Climate change in Goulburn Broken*, Department of Sustainability and Environment, Victoria, Melbourne

Figure 9: Fire History in Murrindindi Shire

Date	Details
	almost Eildon. Burnt with astonishing speed according to reports
1939 (13 Jan)	Major fires across Victoria, particularly in forests. 71 lives lost, 69 sawmills and 700 homes destroyed. Rubicon, Toolangi, Black Spur severely effected
1944	Serious outbreaks at Alexandra, Toolangi (Nov), Molesworth and other areas
1950	Large outbreak started on railway line near Native Dog Creek and burnt to Whanregarwen Road. One person badly burnt
1951	Whanregarwen area 4000 acres
1957	Serious outbreak Acheron - Thornton area
1959 (12 Jan)	Fire started at Yarck fanned by strong northerly. 10 000 acres including stock, fencing
1962	Kinglake threatened by major fire starting near St Andrews
1969 (8 Jan)	Extensive areas of Yea and Alexandra districts burnt involving loss of one life, 30 houses, large stock and fencing losses. Much of former Shires of Yea and Alexandra were burnt. Points of origin - Acheron Cutting, Ghin Ghin & Junction Hill
1981 (19 Mar)	Dairy Creek Road area - Yea 10434 hectares
1982 (Nov)	Fire started near Wandong. Burnt to Wallaby Creek area -Mt Robertson and into King Parrot Valley
1983 ("Ash Wednesday")	Ash Wednesday fires across Victoria. Marysville threatened by Warburton outbreak
1985 (15 Jan)	Acheron - Taggerty- Thornton area
1991	Significant fires at Ghin Ghin and Thornton involving thousands of hectares, and Strathbogie area which spread towards Merton
2004 (Feb)	Significant fire at Mt Torbeck (DSE land) 637 hectares burnt.
2004 (April)	Castella (DSE land) 100 hectares lost
2005(Dec 31)	Kanumbra ("Brilliant" fire) significant grass fire 500 hectares burnt.
2006 (late Jan)	Significant fires at Kinglake (Parks Victoria/DSE land); Glenburn/Yea and Highlands (Loss of life to one CFA volunteer on fire front)
2009 (Feb 7) ("Black Saturday")	Catastrophic fires across the State of Victoria and within the southern areas of the Murrindindi Shire, which caused devastation to the areas of Marysville, Granton, Narbethong, Buxton, Taggerty, Toolangi, Castella, Kinglake, Kinglake Central, Pheasant Creek, Kinglake West, Flowerdale, Strath Creek, Glenburn areas. The number of dwellings destroyed by this fire was 1,397. Significant loss of life also occurred resulting in 95 deaths within Murrindindi Shire.

To describe the effect of fire in the municipality, it is necessary to understand the fire history of the shire. This can be done by examining the number and type of Fire Danger Indexes (FDI) and Total Fire Bans (TFBs) for the municipality. FDIs are determined based on 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. 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 TFB days.

The following figures provide a historical picture of the fire situation in the Municipality. Figure 10 gives us the average breakdown of the Municipalities fire season across the Moderate to Code Red categories of the FDR range. Whereas figure 11 describes the annual variation between each FDR category over different fire seasons for the last seven years. Finally figure 12 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.

Figure 10: Murrindindi Shire Fire Danger Rating History in Forest and Grass (Average from 2004-2011)

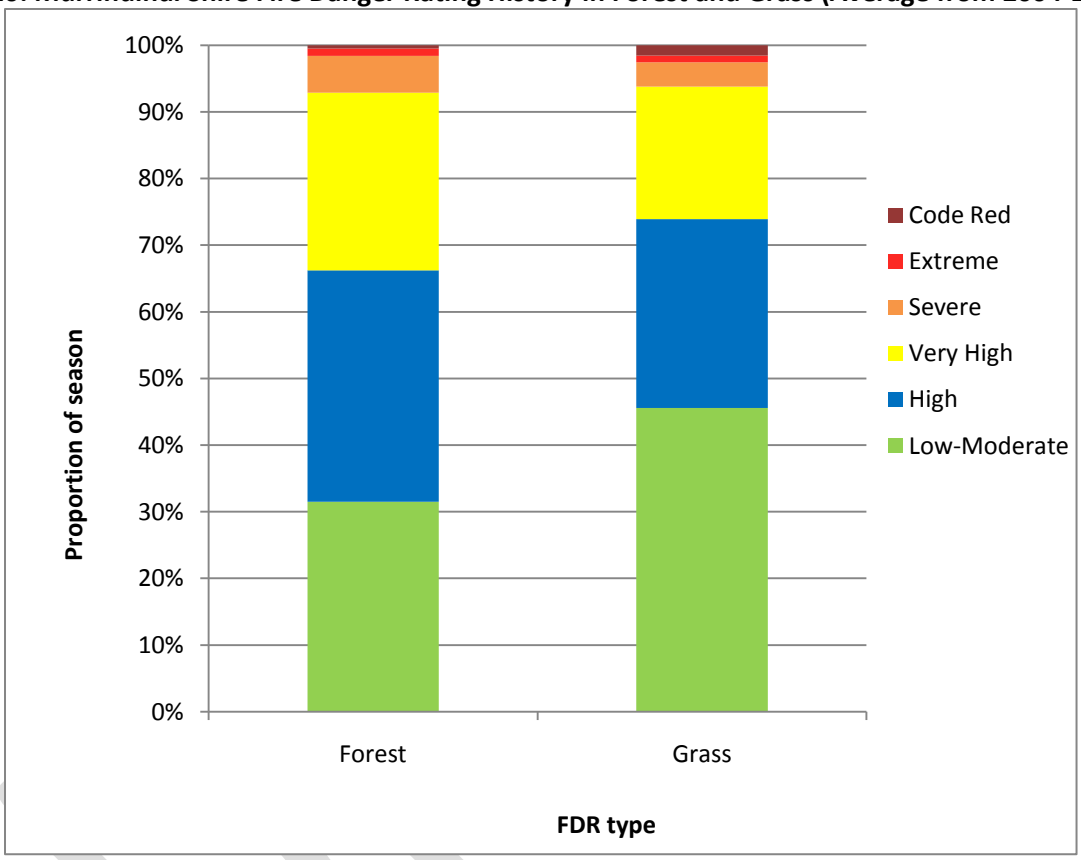
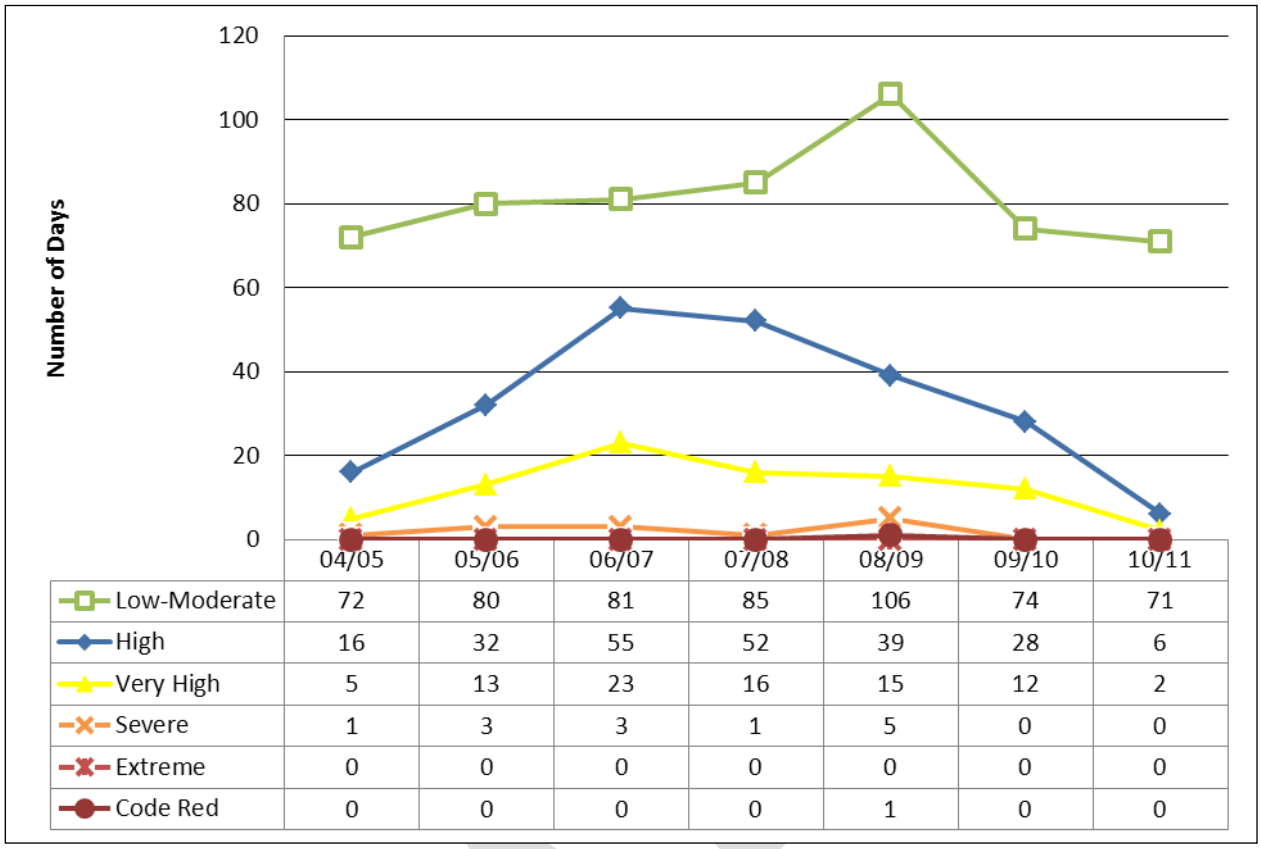
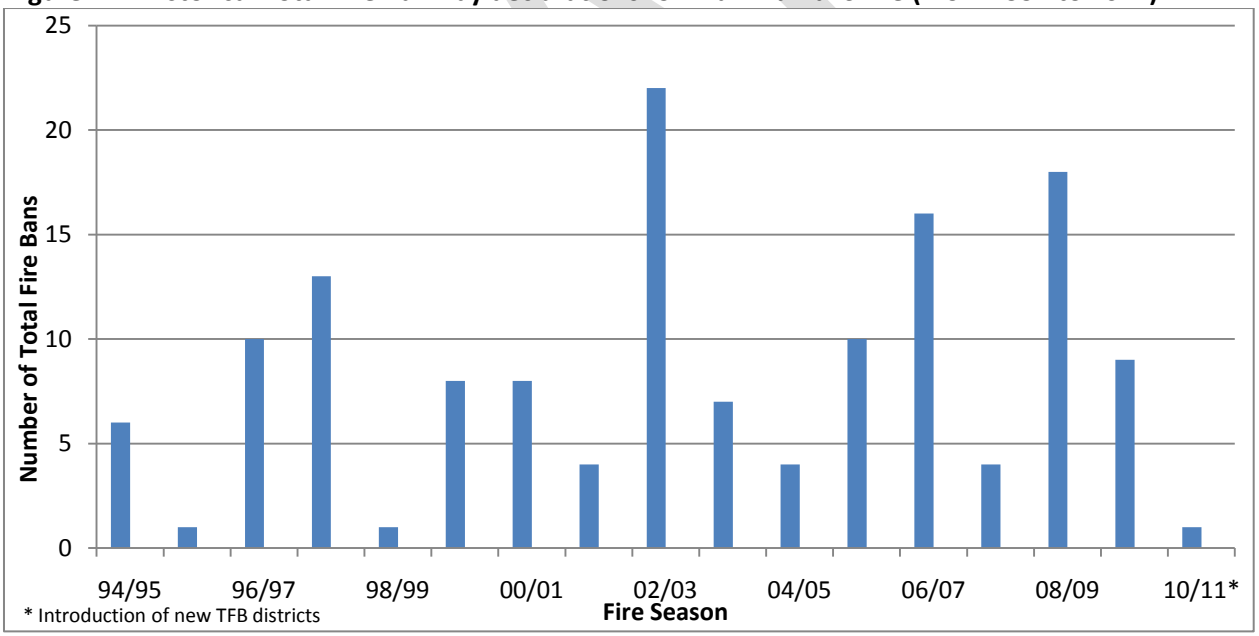


Figure 11: Murrindindi Annual Variation in Fire Danger Ratings (2004-2011)



	04/05	05/06	06/07	07/08	08/09	09/10	10/11
Low-Moderate	72	80	81	85	106	74	71
High	16	32	55	52	39	28	6
Very High	5	13	23	16	15	12	2
Severe	1	3	3	1	5	0	0
Extreme	0	0	0	0	0	0	0
Code Red	0	0	0	0	1	0	0

Figure 12: Historical Total Fire Ban Day declarations for Murrindindi Shire (From 1994 to 2011)



3.2 Strategic Implications

Bushfire can occur in any type of vegetation, such as grassland, trees, crops or shrubs. This section describes the Murrindindi municipality and factors that increase the likelihood of a fire starting and spreading across this area. The MFMP is the strategy that categorises risk and identifies appropriate treatment to address improved fire safety measures across the municipality.

Murrindindi 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 municipal 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 municipality of Murrindindi has experienced a number of fires over the years and was particularly impacted by the 2009 'Black Saturday' Fires. The combination of topography, climate, 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.

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 treed with 48% tree cover predominantly in the mountainous sections spread throughout of the shire including the sub alpine and Alpine areas around Lake Mountain Resort. These areas have a number of steep escarpments and highly varying topography, are heavily vegetated, which have little access or egress and have a number of water courses flowing through them. Murrindindi Shire also has a number of neighbouring municipalities with a large percentage of tree cover and fires can spread from these municipalities into the Shire. All of these factors combine to make fire control and response difficult in Murrindindi Shire.

A number of major rivers and streams flow through the municipality including the Goulburn River, the Rubicon River, Acheron River, Taggerty River, Steavenson River, Little Steavenson River, Yea River, Murrindindi River and the King Parrot Creek and associated river valleys. The Goulburn River runs east to west through the Shire with its tributaries draining from both the north and south. 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.

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 Murrindindi Shire. For instance the bushfire season in 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. These climatic conditions can build up over several days to a storm event with a sudden south westerly wind change, creating a situation whereby fire ignition from lightning becomes a more likely occurrence. The propensity of a southerly wind change, often results in the fire 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[6]. These foehn winds have the potential to dramatically increase air temperatures and wind speeds which may directly impact fire behaviour.

A number of other Topographical and weather driven elements can also affect wind direction and strength and thus fire behaviour[7]. These include

- Forced channelling – where wind is deflected by landscape features such as valley side-walls

[6] Sharples, J. Mills, G. McRae, R, & Weber, R 2009, *Fire danger anomalies associated with foehn-like winds in southeastern Australia*, 18th World IMACS/MODSIM Congress, Cairns, Australia, 13-17th July 2009

[7] Sharples, J. 2010. *Wind-Terrain Interaction and Bushfire Propagation Over Rugged Terrain*, Bushfire Cooperative Research Centre and Australian Fire and Emergency Services and Authorities Council, Melbourne, Issue 61, May 2010

- Pressure driven channelling- the formation of winds within valleys and other terrain features driven by broad scale pressure gradients
- Thermal winds- differences in insolation across rugged terrain can result in temperature differences across the landscape which can affect wind direction and speed by the creation of local circulations over a range of environments
- Downward momentum transports of upper winds – upper winds can be mixed as they flow down to the land surface (through convective effects) potentially impacting wind speed, temperature and moisture.
- Lee slope channelling- is caused by a lee-slope eddy developing causing disruption to wind direction

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

Murrindindi has experienced a number of fires in recent years. The 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. Murrindindi Shire's population of approximately 14000 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 and the various National and State Parks. A large number of non-resident rate payers have holiday properties spread throughout the shire that are highly utilised over the summer period. A significant number of visitors also arrive at, or pass through the region in winter on their way to the Alpine Resorts at Mt Buller, Mt Stirling and Lake Mountain.

Murrindindi 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 and also in capturing the knowledge and expertise of those that have had many years of experience living with fire risk.

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 evaluating bushfire risk. There is sufficient land availability for population expansion around the urban areas of Alexandra, Kinglake Ranges, Eildon and Yea, both at the town's edges and less intensively throughout the rural areas. Town Protection Plans are identified as the planned response document for both emergency services and the community to a bushfire within close proximity to a town, with the potential to impact on the local community.

Tourism, planned events and festivals has the potential to 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. In the last year, 611,000 people visited the Goulburn Broken region with 53.5% (or 326,885) of these people coming to the region for holiday or leisure activities[8]. Many of these visitors come to the municipality for its landscape and natural values and spend a large percentage of their time outdoors. 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, escalating the potential impact as the fire risk rises.

[8] Goulburn Valley River Tourism 2012 www, *Travel to Goulburn River Valley, year ended March 2012*, www.goulburnrivervalley.com.au/visitationstatistics

4 Municipal Fire Management Objective

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.

4.1 Municipal Objective

The fire management objective of Murrindindi Shire and Lake Mountain MFMPC is;

- The Murrindindi Shire working together to plan for, respond to and recover from fire – to reduce the risk of fire to the community, environment and economy in the Murrindindi Shire

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 that are resilient to fire.
- Greater understanding of fire and its potential impacts within the community.
- Healthy natural, social and built economic environments.

○ Alignment of Regional & Municipal Objective

The Murrindindi 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 significantly to the realisation of the Hume RSFMP's vision.

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.

Furthermore the formation of the Murrindindi Shire and Lake Mountain 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.

Figure 13: 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	Develop and implement fire management	The MFMPC consists of multiagency representation

Figure 13: Alignment of MFMP & RSFMP objectives

RSFMP element	RSFMP objective	MFMP contribution
implementation	programs and activities in a collaborative manner.	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.

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

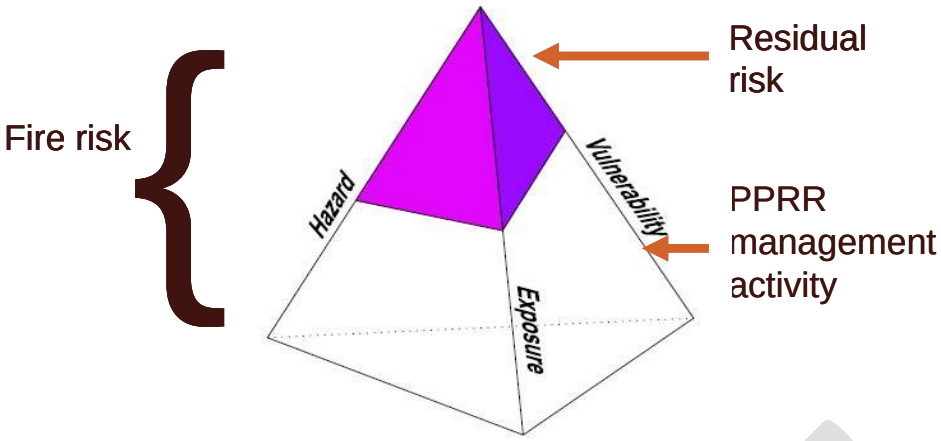
And the standard emphasises the need to establish and manage the risk to the objectives that you have set during the plan development process.

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. 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 14 Chrighton's Risk Pyramid



By this means 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.

5.2 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.

It is understood that a single fire incident that impacts an individual or group can be seen as a catastrophic event locally. In the preparation of the MFMP however, the MFMPC utilised State derived consequence tables to inform planning. These State consequence tables were utilised by all MFMPCs throughout Victoria so that individual risks and their consequences can be compared between municipalities, regions and the State. For example, if a risk on the Risk Assessment (Figure 16) has a low risk rating, this relates directly to the State derived consequences and has no bearing on how consequences should be viewed by a local community, group or individual.

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.

Figure 16 is a summary of the risk assessment process, detailing the highest priority bushfire risks in the Murrindindi 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 Murrindindi Shire Fire Prevention Plan.

Once assessed, risks were also given categories using the following table (figure 15). 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 (figure 16, page 29) and the Risk Management Strategy (figure 17, page35).

Figure 15: Risk Categories Table

Risk Group	Risk Category	Risk Element
SOCIAL	People & Social Setting	*Life & injury:* Public Safety *Social services*: Functional continuity *Health & wellbeing:* Social networks *Displacement of people:* Employment/income
	Infrastructure	*Residential:* House, flat, caravan, apartments *Public accommodation* Boarding house, hotel, hostel, correctional facilities *Public assembly:* Education, hall, theatre, stadium, cafe, restaurant *Health care:* Special accommodation homes, nursing homes and hospitals
	Cultural, Heritage	*Heritage sites and buildings* *Indigenous sites* *Iconic sites and features*: e.g. Puffing Billy
ECONOMIC	Infrastructure	*Commercial:* Shopping complex, office *Industrial:* Factory (heavy, light, special), warehouse, silo, chemical, petrol *Essential Infrastructure:* Pipelines, Power, public transport systems, Water Catchments, Power Water & Sewerage, Gas, Communications *Transport:* Road, rail, bridge, tunnel, port, marine, airport
	Production	*Agriculture and Farming:* Plantation, crop, pasture, poultry, feedlot, sawmill *Business/Industrial* *Capacity* *Tourism*
ENVIRONMENT	Biodiversity	*Assets that provide biological based ecosystem functions and/or services considered of value.*
	Water	*Assets that provide of atmospheric/climatic ecosystem functions and/or services considered of value*
	Air	*Assets that provide water-based ecosystems 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 strategies*
	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*

Figure 16: Risk Assessment

ID #	RISK DESCRIPTION	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	COMMENT	LIKELIHOOD	RISK RATING[9]
1	Risk to communities and residences with limited access and egress, living on fire prone ridges, in the King Lake Ranges (including Kinglake, Castella, etc) area from fire on severe and above Forest FDR days	Social	People & Social Setting	lightning, human factors	Loss of life, assets and infrastructure, time and cost of recovery, impact on tourism	Emergency communications and other communications on ridgeline. Access/egress limited	Unlikely	Moderate
2	Risk to vulnerable communities, residences and industry with limited access and egress in the Flowerdale/King Parrot Creek Valley from fire on severe and above FDR days	Social	People & Social Setting	lightning, human factors	Loss of life, assets and infrastructure, time and cost of recovery, impact on tourism	Access/egress limited	Unlikely	Moderate
3	Risk of fire impacting upon seasonal (summer influx) community in heavy fuel load areas around Eildon and Taylor Bay on very high and above FDR days	Social	People & Social Setting	lightning, human factors	Loss of life, assets and infrastructure, time and cost of recovery, impact on tourism	Limited access/egress , lack of understanding regarding bushfire	Unlikely	Moderate
4	Risk to influx of people over summer at camping grounds/camps across the Murrindindi Shire during holiday periods from fire on very high and above FDR days	Social	People & Social Setting	lightning, human factors	Loss of life, assets and infrastructure, time and cost of recovery, impact on tourism	More at risk from fires burning into campgrounds that fires starting at campground, lack of communication (Eg of FDR), lack of public awareness	Unlikely	Moderate

[9] Risk ratings determined using a combination of State Bushfire Consequence Table, Likelihood Table and Risk Assessment Matrix (in Attachment 1). Consequences from the State Bushfire Consequence Table only consider the effects of a scenario at a State-planning level and do not necessarily represent the views of any local groups or individuals.

Figure 16: Risk Assessment

ID #	RISK DESCRIPTION	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	COMMENT	LIKELIHOOD	RISK RATING[9]
5	Risk to influx of people over summer at caravan parks across the Murrindindi Shire during holiday periods from fire on severe and above FDR days	Social	People & Social Setting	lightning, human factors	Loss of life, assets and infrastructure, time and cost of recovery, impact on tourism	Caravan parks have Emergency Management Plans	Unlikely	Low
6	Risk to influx of visitors, infrastructure and employment at Lake Mountain Alpine Resort from fire on very high and above FDR days.	Social	People & Social Setting	lightning, human factors	Loss of life, assets and infrastructure, time and cost of recovery, impact on tourism	Impacts can continue over winter or for a number of seasons, Limited access/egress (single road in and out), remote - access by emergency services can take a significant amount of time	Unlikely	Moderate
7	Risk to community with poor access and egress in heavily vegetated areas around 'Highlands' from fire on very high and above days	Social	People & Social Setting	lightning	Loss of life, assets and infrastructure, time and cost of recovery, impact on tourism	Difficult access due to terrain and small number of roads. More grassland areas than forested areas, elevated area, high winds, high incidence of lightning, scout camp in area	Possible	Low
8	Risk to communities in the Marysville Triangle from fire on severe and above FDR days	Social	People & Social Setting	lightning, human factors	Loss of life, assets and infrastructure, time and cost of recovery, impact on tourism	Will impact tourist numbers on Lake Mountain, and service provision from adjoining towns	Unlikely	Moderate
9	Risk of fire Ignition from people travelling along highways and major roads on very high and above FDR days	Social	People & Social Setting	Mechanical failure, human factors	Loss of life, assets and infrastructure, time and cost of recovery, loss of biodiversity	A large percentage of fire ignitions occur on roadsides	Possible	Moderate

Figure 16: Risk Assessment

ID #	RISK DESCRIPTION	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	COMMENT	LIKELIHOOD	RISK RATING[9]
10	Risk to people travelling along highways and major roads before, during and after a fire event	Social	People & Social Setting	lightning, human factors	Loss of life	Includes smoke, falling trees and ember attack	Possible	High
11	Risk to Snobs Creek Hatchery and its water catchment from fire	Social	People & Social Setting	lightning, human factors	Loss of life, loss of stock, loss of production, increased treatment costs	State significance due to sole site for Chinook Salmon, closed on code red days, 3 residences on site, clean catchment water a priority (ash/phoscheck impacts), consultation needed on water extraction, nationally threatened fish present on site, generators on site for business critical processes	Unlikely	Moderate
12	The risk of fire impacting people, residences and infrastructure in large towns the Murrindindi Shire on severe and above FDR days.	Social	People & Social Setting	lightning, human factors	Loss of assets and infrastructure, time and cost of recovery	This risk also has the potential to directly affect the response/recovery efforts in the region.	Unlikely	Low
13	The risk of fire impacting people, residences and infrastructure in small towns in Murrindindi Shire with a predominant grass fire threat on very high and above FDR days	Social	People & Social Setting	lightning, human factors	Loss of life, assets and infrastructure, time and cost of recovery	Small town examples include: Buxton, Yarck, Molesworth, Strath Creek, Taggerty, and Thornton.	Unlikely	Low
14	The risk that people have a lack of relevant targeted information in regards to fire and preparation for fire	Social	People & Social Setting	Lack of targeted information, people unable to access current information, comprehension problems	Loss of life, assets and infrastructure	A large number of tourists, non-resident owners and people new to the area have a lack of understanding of fire	Possible	Low

Figure 16: Risk Assessment

ID #	RISK DESCRIPTION	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	COMMENT	LIKELIHOOD	RISK RATING[9]
15	Risk to school camps and outdoor education facilities (including 4wd camps) including the loss of infrastructure, danger to people and employment, of the negative impacts of fire on very 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	Loss of infrastructure, danger to people, employment	Unlikely	Moderate
16	Risk of mobile service being interupted due to towers being impacted by bushfire on very high and above FDR days	Social	People & Social Setting	Indirect impacts eg Loss of power to tower (most likely cause), direct impact to structure (unlikely). Loss of optic fibre and/or radio links feeding sites.	Temporary loss of mobile telephone service for a small area. Wide area failure of mobile phone and wireless data (internet) services to various carriers.	Towers themselves fairly fire resistance, other communications devices still operating	Possible	Moderate
17	Risk of telephone communications being interupted due to damage to cables during a bushfire on very high and above FDR days	Social	People & Social Setting	Dozer cutting lines during fire response or burning tree route near cable (rare), plastic risers. Loss of optic fibre	Loss of all public communications services for a small area. Failure of telephone and data (internet) services to general public and Government	Unusual but has been known to happen	Possible	Moderate

Figure 16: Risk Assessment

ID #	RISK DESCRIPTION	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	COMMENT	LIKELIHOOD	RISK RATING[9]
18	Risk of Statenet Mobile Radio (SMR) service being interupted due to towers being impacted by bushfire on very high and above FDR days	Social	People & Social Setting	Indirect impacts eg Loss of power to tower (most likely cause), direct impact to structure (unlikely). Heat from fire passage melting antenna feeder cables causing loss of communication system	Emergency Services communications systems impaired for a small area - may lead to loss of fire line comms in some remote areas. Radio links used at these transmission sites will also be affected	Reduced quality but not total service, other communications still available (eg mobile telephone) - location dependant	Possible	Moderate
19	Risk to Kinross Farm including Bio-security (eggs used to produce flu vaccinations etc), economic and employment loss from fire on severe and above FDR days	Social	Infrastructure	lightning, human factors	Loss of life, assets and infrastructure, time and cost of recovery, impact on provision of eggs for vaccine production	Limited access/egress, loss of power can effect animal health, back-up generators for some power	Unlikely	Moderate
20	The risk of fire impacting upon Indigenous and non - Indigenous (including Cattleman's huts, Rubicon trestle bridge and hydroelectric power scheme) Heritage sites through secondary fire control and on severe and above FDR days	Social	Cultural, Heritage	No knowledge of site locations and secondary fire controls (eg dozer) may impact Indigenous sites, Lack of recording of Indigenous sites, Lack of protection of (some) non-Indigenous sites	Loss of cultural heritage	Scar trees particularly susceptible to fire, non-Indigenous heritage builidngs may be isolated and in a state of disrepair and susceptible to fire	Possible	Moderate

Figure 16: Risk Assessment

ID #	RISK DESCRIPTION	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	COMMENT	LIKELIHOOD	RISK RATING[9]
21	Risk of fire influenced 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 Damp Forest, Montane Dry Woodland and Montane Herb-rich Woodland the majority would be found on public land.	Serious	Low
22	Risk of 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	Major	Moderate
23	Risk of fire impacting State and Federally listed flora and fauna sites/habitat on extreme or above FDR days	Environment	Biodiversity	lightning, bushfire	Loss of threatened species	Regional generic risk provided by DSE	Possible	Low
24	Risk of major transmission lines & switch stations being impacted/damaged by 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	Unlikely	Moderate
25	Risk of distribution lines & sub stations being impacted/damaged by bushfire on an extreme and above FDR day leading to a loss of service	Economic	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)	May take up to a week to restore power to towns	Unlikely	Low

Figure 16: Risk Assessment

ID #	RISK DESCRIPTION	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	COMMENT	LIKELIHOOD	RISK RATING[9]
26	Risk of fire impacting commercial forests and plantations on very high and above FDR days	Economic	Production	lightning, human factors, forestry activities	Loss of assets and infrastructure, time and cost of recovery	Impacts on regional industry	Unlikely	Moderate
27	Risk of loss or damage to trout hatcheries and fish farms, the fishing industry, water quality/temperature and possible economic impacts from fire on severe and above FDR days.	Economic	Production	lightning, human factors	Loss of assets and infrastructure, time and cost of recovery, impact on tourism	Not necessarily fire impacts but impacts on catchments	Unlikely	Low
28	The risk of bushfire negatively impacting natural assets and environmental values in the Murrindindi shire on very high and above FDR days	Economic	Production	lightning, bushfire	Loss of biodiversity values, reduction in tourism, economic impacts	Tourists numbers may drop due to a perceived or real impact to environmental values	Possible	Low

5.3 Risk Management Strategy

Having developed a register of risks for BRC 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

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

The following table (figure 17) details all of the treatments or procedures being undertaken by all of the major infrastructure providers, regulatory agencies and community based agencies throughout Murrindindi Shire. Each of the statements was given by the Responsible Agency as something that they see as treatment essential to fire prevention, preparedness, response recovery and the use of fire. They have been ordered using the risk categories in Table 15, as have the risk assessments in Table 16. This is so that some consistency of method can be utilised to group 'like' risks or treatments together. In Table 17, some of the

treatments may have additional risk groups. For example, a treatment that impacts people may also have a potential economic impact. They have however been ordered to reflect their priority risk group. The highest priority in categorising the treatments is the 'primacy of life'. It should be noted that these are proposed treatments only for the next 3 years, and that actual implementation in any given year may be influenced by a variety of factors such as availability of resources and seasonal conditions

Figure 17: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted[10]
Social	**People and Social Setting**	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
		6	Public Information	Fire information through Fire Danger Rating signs, media etc to raise awareness of fire risk. Includes Fire Action Week.	✓	✓	·	·	·	CFA	N

[10] *The treatments itemised in figure 17 are primarily at program level and in many cases apply equally across the municipality, however some have the ability to have resources and effort targeted at specific locations or points of interest to the MFMPC.*

Figure 17: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted[10]
Social	**People and Social Setting**	7	Community Information Guide	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
		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	·	✓	·	·	·	DSE	N
		13	Information kits	"After the fires: Practical Advice" & "Recovery from emergencies"; information kits containing brochures & fact sheets for people affected by fire/emergency	·	·	·	✓	·	DHS	N

Figure 17: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted[10]
Social	**People and Social Setting**	14	Vulnerable persons toolkit	Identifies location, contact details & describes needs of vulnerable persons within a municipality	·	✓	·	·	·	DHS	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
		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	·	·	·	✓	·	LGA	N
		17	Community recovery	Long term post fire support to affected communities/groups, including advocacy, facilitating reconstruction, debriefing	·	·	·	✓	·	LGA	Y
		18	Vulnerable Communities, Fire Awareness & Response	Identify vulnerable communities and individuals within the Municipality . Targeted Community education & information for vulnerable groups about fire (and other emergencies). Capacity to inform Emergency response agencies off the existence of vulnerable members within the community.	✓	✓	·	✓	·	LGA	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.	·	✓	·	·	·	LGA	Y

Figure 17: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted[10]
Social	**People and Social Setting**	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.	·	✓	·	·	·	LGA	Y
	Infrastructure	21	Detection	Maintenance of a detection network. Includes fire lookout towers and detection flights	·	✓	·	·	·	DSE	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 and local command facilities to predetermined standards	·	✓	·	·	·	CFA/DSE	N
		23	Air support facilities	Maintenance of a strategic network of air support facilities. Includes airbases & helipads.	·	✓	·	·	·	DSE	Y
		24	Fire risk management system	GIS program identifying location & details of community facilities managed by DHS and allied agencies.	·	✓	·	·	·	DHS	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

Figure 17: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted[10]
Economic	**Production**	26	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	·	·	·	✓	·	DPI	N
		27	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	·	·	✓	·	·	DPI	N
	Infrastructure	28	Access Roads and Tracks in National Parks	Establishment of constructed and maintained roads, bridges and tracks to allow safe passage for fire fighting vehicles. Includes Walking Track Maintenance.	·	✓	·	·	·	PV	Y
		29	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
		30	Waterpoint maintenance	Maintenance of a strategic network of water points	·	✓	·	·	·	DSE	Y
		31	Fire access roads and tracks	Maintenance of roads, bridges and tracks to specified standards.	·	✓	·	·	·	DSE	Y

Figure 17: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted[10]
Economic	**Infrastructure**	32	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)..	✓	✓	·	·	·	DEECD	N
		33	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 (eg gutter cleaning)..	✓	✓	·	·	·	SP Ausnet	N
		34	Routine maintenance of transmission & powerlines	Vegetation management around powerlines and along easement, regular inspections, maintenance of access tracks.	✓	✓	·	·	·	SP Ausnet	N
		35	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 (eg gutter cleaning)..	·	✓	·	·	·	Telstra	N
		36	Bushfire Mitigation	Removal of identified fire risks to lines & facilities, eg tree lopping	·	✓	·	·	·	Telstra	N
		37	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 (eg gutter cleaning)..	·	✓	·	·	·	GVW	N

Figure 17: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted[10]
Economic	**Infrastructure**	38	Resourcing	Provision of specialist equipment (graders, water carriers) facilities and information management (including the operation of Municipal Emergency Coordination Centres), having staff and equipment on stand-by to assist other agencies involved in emergency response.	·	·	✓	·	·	LGA	N
		39	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.	·	✓	·	·	·	LGA	Y
		40	Fire access Roads and Tracks	Maintenance of existing and 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).	·	✓	·	·	·	LGA	N
		41	Fuel Hazard Management	Reducing fuel loads and or promoting such works to other Authorities to protect assets, fuel hazard mitigation eg slashing, burning, within townships, roadsides, reserves including routine maintenance works within Reserves and on roadsides	✓	✓	·	·	·	LGA	N
		42	Powerline Clearance	Monitoring on an 'as needed basis' and engaging with 'Responsible persons' for Vegetation management around powerlines.	✓	✓	·	·	·	LGA	N

Figure 17: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted[10]
Economic	**Infrastructure**	43	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.	·	✓	·	·	·	LGA	Y
		44	Vegetation Management	Advice to landholders & linkages to CFA to manage vegetation & lower bushfire risk. Includes current advice, promotion and notification processes.	✓	✓	·	·	·	LGA	Y
		45	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**	46	Vegetation Management	Advice to landholders & linkages to CFA Brigades to manage vegetation & lower bushfire risk	✓	✓	·	·	·	CFA	Y
Environment	**Biodiversity**	47	Native Animal welfare	Management of native animal welfare associated with an emergency incident.	·	·	·	✓	·	DSE	N
		48	Rehabilitation plan	Implement a works program to repair or replace fire affected infrastructure and minimise impacts upon natural values.	·	·	·	✓	·	DSE/PV	N
Planning	**Governance and Regulation**	49	Statutory & Legislative activities	Bushfire Prone Areas & Bushfire Management Overlay, declaration of TFBs, declared danger periods, regulation of burning permits.	✓	✓	·	·	·	CFA	N
		50	Park/Forest closures	Closure of parks, forests and facilities at times of very high fire danger	·	✓	·	·	·	DSE/PV	N

Figure 17: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted[10]
		51	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
		52	Enforcement	Programs which support legislative compliance. Includes patrols to enforce campfire regulations, forest closures, fire cause investigations and prosecutions.	✓	·	·	·	·	DSE/PV	N
		53	Bushfire Management Overlay	Development of a new overlay, includes opportunity to modify to local conditions through schedules.	✓	·	·	·	·	DPCD	N
		54	Bushfire Prone Areas	Interactive online map service that identifies areas likely to be subject to fires and consequent construction standards requirements	✓	·	·	·	·	DPCD	N
Planning	**Governance and Regulation**	55	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 Murrindindi 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	✓	✓	·	·	·	LGA	N

Figure 17: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted[10]
		56	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	·	✓	·	·	·	LGA	N
		57	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.	✓	✓	·	·	·	LGA	N
Planning	**Governance and Regulation**	58	Operation Firesetter	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
		59	Investigations	Investigate suspicious fires to ascertain cause and identify perpetrators	·	·	·	✓	·	Vic Pol	N
	Planning and Communication	60	Emergency Management Plan (Site)	CFA input into site specific Emergency Management Plans including bushfire component	·	✓	·	·	·	CFA	N
		61	Emergency Management Response Plans	Ensure that proper and sufficient works for wildfire prevention and suppression activities in Victoria are conducted in an operationally safe, environmentally sensitive and cost-effective manner. Ensure efficient and appropriate response	·	✓	✓	·	·	PV	Y

Figure 17: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted[10]
		62	Technical advice	Provision of specialist technical advice and support to other agencies involved in fire mgmt. activities	·	·	✓	·	·	PV	N
		63	Fire Management Planning	DSE Fire Management Zones. Strategic landscape scale zoning of public land across the state to achieve fuel mgmt. outcomes	·	✓	·	·	·	DSE	N
		64	Planned burning	Implementation of planned burning and other works as identified in FOP on public land	·	✓	·	·	·	DSE	Y
		65	Crown Land fuel mgmt.	Managing fuel loads on crown land. Includes slashing, mulching and burning.	·	✓	·	·	·	DSE	Y
Planning	**Planning and Communication**	66	Bushfire readiness	Provision of specified levels of skills and resources to respond to emergencies. Includes people (PFFs), equipment, heavy plant, aircraft, facilities and consumables	·	✓	·	·	·	DSE	N
		67	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.	✓	·	·	·	·	DSE/PV	N
		68	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.	·	·	✓	·	·	DSE	N
		69	Emergency mgmt. support	Provide support to other organisations for emergency management, including expertise and specialist resources.	·	·	✓	·	·	DSE	N

Figure 17: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted[10]
		70	Emergency Relief Handbook	Information & direction for emergency relief arrangements in Vic	·	·	·	✓	·	DHS	N
		71	Bushfire plan	Individual Bushfire plans for DHS run facilities (as necessary)	·	·	·	✓	·	DHS	N
		72	Bushfire hazard identification framework	Identifies the different level of bushfire hazard at a state wide scale and the different responses that planning and building systems will implement	✓	·	·	·	·	DPCD	N
Planning	**Planning and Communication**	73	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.	·	✓	·	·	·	DEECD	N
		74	Public Awareness	Fire information through notice boards, brochures, signage etc to raise awareness of fire risk.	·	✓	·	·	·	SP Ausnet	N
		75	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.	·	·	✓	·	·	SP Ausnet	N
		76	Supply continuity	Maintain a response capability (scaled to level of risk) so a to minimise length of power disruptions from incidents eg fire/storms	·	·	✓	·	·	SP Ausnet	N
		77	Restoration	Repair & replace damaged assets post fire so as to restore full services and minimise community impact	·	·	·	✓	·	SP Ausnet	N

Figure 17: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted[10]
		78	Powerlines Hazard Identification	Preparedness around powerlines including risk ratings, inspections, maintenance and response arrangements. Includes Powerlines Bushfire Mitigation Strategy, Powerlines Faults and Emergency Events.	·	·	·	·	·	SP Ausnet	Y
		79	Specialist Support	Provide specialist support to other agencies(eg Vic Pol, CFA, DHS, DSE) involved in response to an emergency, eg doorknocks, transport, staging area mgt.	·	·	✓	·	·	SES	N
Planning	**Planning and Communication**	80	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
		81	Emergency response plan	Respond appropriately to the impacts of fire on water supply and waste management	·	·	✓	✓	·	GVW	N
		82	Technical advice	Provision of specialist technical advice, information & skills to other agencies involved in emergency response	·	·	✓	·	·	LGA	N
		83	MERC	Coordinate municipal emergency response effort in the event of a major bushfire	·	·	✓	·	·	Vic Pol	N
		84	Evacuations	Coordinate evacuation measures undertaken in response to a bushfire threat	·	·	✓	·	·	Vic Pol	N
		85	Specialist Support	Provide specialist support to other agencies involved in response to a bushfire eg vehicle escorts	·	·	✓	·	·	Vic Pol	N

Figure 17: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted[10]
		86	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
Planning	**Operational**	87	Standard Operating Procedures	Dictate level of readiness according to the conditions so as to ensure appropriate resourcing & preparedness for optimum response	·	✓	·	·	·	CFA	N
		88	Resourcing	Strategic network of qualified & equipped staff, volunteers & appliances for mounting timely response to fires on private land.	·	·	✓	·	·	CFA	Y
		89	Fire Operations Plan	Planning of proposed fire prevention activities to be carried out on public land (includes all land managed by DSE 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.	·	✓	·	·	·	DSE	N

Figure 17: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted[10]
		90	Regional Resourcing & activation guidelines	Identifies DHS resource requirements for different emergencies and describes triggers for activation of different levels	·	✓	·	·	·	DHS	N
		91	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
Planning	**Operational**	92	Risk mgt 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	93	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
		94	Emergency grants	Grant to families whose home is impacted by fire, allocated by municipality.	·	·	·	✓	·	DHS	N

5.4 Action Plan

In addition to the above Risk Assessment and Risk Management Strategy, the MFMPC came up with an action plan. The Action Plan (Figure 18) 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. 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 18: Action Plan Breakdown

Treatment ID #	Risk Description/Title	Specific Treatment Activity	Activity Type	Treatment Status	P.P.R.R or Use	Activity Custodian	Year 1	Year 2	Year 3	Comment
1	Fires spreading from roadsides	Develop a project to investigate roadside Management Issues - linkages in DSE strategic fire access roads, current fire prevention plan, strategic access/egress roads, CFA critical access roads	Research	New	Preparedness	MFMPC, DSE, CFA, LGA, Vic Roads	Yes			Create project to determine fuel load levels on and adjacent to roadsides. Come up with a slashing and or spraying standard to apply to roads (where appropriate), act within appropriate legislative boundaries
2	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, DSE, Lake Mountain	Yes			
3	Emergency Management Plans	LGA and CFA to work together to promote that major employers, tourism operators, event operators and other agencies develop Emergency Management Plans	Research	New	Preparedness	LGA, CFA	Yes			Develop register of EMPs as part of project
4	Fire resources	Identify infrastructure that supports Fire Response (Air fields, water points, information from TPPs, Wildfire Response Plans)	Research	New	Response	DSE, CFA, LGA, MFMPC		Yes	Yes	MECC Central software

Figure 18: Action Plan Breakdown

Treatment ID #	Risk Description/Title	Specific Treatment Activity	Activity Type	Treatment Status	P.P.R.R or Use	Activity Custodian	Year 1	Year 2	Year 3	Comment
5	Non-resident rate payers	Look at ways of maintaining and or engaging non-resident rate payers regarding PPRR	Advocacy	New	Preparedness	LGA, CFA		Yes	Yes	
6	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, LGA, DSE, Parks Vic, DHS, OESC etc)	Yes	Yes	Yes	Accuracy of data layers is essential in providing correct information to stakeholders and incident controllers.
7	Prevention Plan	Ensure MFPP data is incorporated into MFMP (Fire management risk strategies 5, and Fire management treatments 7.5)	Research	Current	Prevention	MFMPC	Yes			In the transfer of this data it is essential that the data is as approved by the responsible agency, the MEMPC or the MFMPC is included. MFPP is to be replaced by MFMP by October 31.
8	Relevant regional agency input	Ensure relevant information from agencies at a regional level is incorporated into MFMP (eg DEECD, DHS etc). Update agency treatment list annually	Advocacy	Current	Preparedness	MFPC	Yes	Yes	Yes	A treatment list has been created that lists all relevant treatments. The custodian of this list will be Murrindindi Shire Council. The list needs to be updated and reviewed annually.
9	Effectiveness of MFMP and MFMPC	Develop a project that examines the structure of the MFMPC, how it is managed and how it will be managed into the future.	Advocacy	Proposed	Preparedness	MFMPC, MEMP	Yes	Yes	Yes	MFMPC (and MEMP) need to look at ways to ensure that the MFMPC is ongoing into the future. Active management of the MFMPC will be required.

Figure 18: Action Plan Breakdown

Treatment ID #	Risk Description/Title	Specific Treatment Activity	Activity Type	Treatment Status	P.P.R.R or Use	Activity Custodian	Year 1	Year 2	Year 3	Comment
10	The Municipal Fire Management Plan	Ensure that the MFMP is kept up to date by checking validity of data annually	Advocacy	Proposed	Preparedness	MFMPC, All relevant agencies (including CFA, LGA, DSE, Parks Vic, DHS, OESC etc)	Yes	Yes	Yes	To ensure that the plan is up to date, data sources need to be verified as part of the annual review process
11	Shire-wide TPP and NSP plan	Develop a plan that looks and the development and maintenance of a TPP and NSP Shire Wide Plan. Develop Shire-wide prioritisation	Action	Proposed	Preparedness	MFMPC, LGA, DSE, CFA	Yes	Yes	Yes	List all TPP/NSPs and their developments. Include community information

5.5 Fire Management Responsibility

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

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.

Link to CFA Website: www.cfa.vic.gov.au

Department of Sustainability and Environment (DSE): is responsible for fire suppression and management on public land (with support from Parks Victoria), including planned burning for ecological and risk management objectives. Their objective is to protect communities and critical infrastructure from fire and to promote healthy and resilient ecosystems.

Link to DSE Website: www.dse.vic.gov.au/

5.5.2 Regulatory and Service Providers

Murrindindi Shire Council: are responsible for the management of all council owned property, as well as ensuring that private land holders appropriately manage their land. 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

Link to Murrindindi Shire Website: www.murrindindi.vic.gov.au/

Lake Mountain Alpine Resort: Is managed by the Lake Mountain Alpine Resort Management Board (LMARMB), established under the *Alpine Resorts (Management) Act 1997.* Lake Mountain Alpine Resort Management Board provides a range of services to the Resort.

These include:

- Water supply, sewerage and drainage
- Car park development and maintenance
- Garbage and waste disposal
- Electricity
- Commercial Operations including: Bistro, , Ski Hire, Ski School, Retail, snow mobile rides

Visitor services include:

- Snow clearance
- Traffic control and parking
- Trail grooming, construction and
- maintenance
- Ski patrolling
- Snow and weather reporting
- Tourism and education information
- Public shelters and
- Toilets

Link to Lake Mountain Alpine Resort Website: lakemountainresort.com.au/

Department of Human Services (DHS): is the appointed agency to co-ordinate recovery planning and operations at the state and regional levels. At a municipal level, the responsibility for recovery is with the

Murrindindi Shire Council with recovery arrangements and plans outlined in the Municipal Emergency Management Plan (MEMP).

Link to DHS website: www.dhs.vic.gov.au

Department of Primary Industry (DPI): The Department of Primary Industries (DPI) 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 DSE 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 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*:* North East Water 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 Goulburn Valley Water Web Site: www.gvwater.vic.gov.au/

Goulburn-Murray Water (G-MW): G-MW is responsible for the operation of irrigation distribution channels, dams, lakes (including Lake Eildon), 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 G-MW Website: www.g-mwater.com.au/

SP AusNet: SP AusNet manages three Victorian energy networks – electricity transmission, electricity distribution and gas distribution.

Link to SP AusNet Web Site: www.sp-ausnet.com.au/

Telecommunications: Telstra and Optus provide communication services and are responsible for telephone exchanges, mobile telephone towers, cabling and radio communication towers.

Link to Telstra Website: www.telstra.com.au/
Link to Optus Website: www.optus.com.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
- 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 were 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 important values the MFMPC is seeking to safeguard. It is imperative that the identified threats are balanced having regard for primacy of life, protecting the broader 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 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 Murrindindi Shire and Lake Mountain MFMPC 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 MFMPC's by agencies.
- Making draft and final MFMP's available to other MFMPC's.

6 Improvement and Plan Reporting and Review Process

Monitoring the performance of the plan is acknowledged as the key to achieving successful results, lowering the fire risk to the community. The Councils monthly performance reporting system will capture key activities at a program level to ensure implementation of the agreed actions are tracked throughout the plans three year life cycle.

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 as who is responsible for the task.

Figure 19: Murrindindi Shire and Lake Mountain 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

*sourced Swan Hill MFMP

The integrated fire management planning process operates within a complex and challenging environment, with often limited and competing resources to achieve the desired outcome.
The Municipal Fire Management Plan provides an improved new structure and risk based approach to fire preparation, prevention, response and recovery in the municipality. The plan forms a common approach to fire planning across the Hume Region and all of Victoria and demonstrates Murrindindi Shire Councils and Lake Mountain Alpine Resorts ongoing commitment to uphold the community's values and expectations in relation to fire safety.

7 Attachments

Attachment 1: Risk Assessment Tables

Figure 20: State Bushfire Consequence Table[11]

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.

[11] Sourced from the State Fire Management Planning Committee

Figure 21: Likelihood Table

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)

Figure 22: Risk Assessment Matrix

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

Attachment 2: Stakeholder Analysis & Community Engagement Plan

In accordance with the IFMP planning guide the Murrindindi 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; firstly 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 23 and four different stakeholder types as outlined in figure 24.

Figure 23: 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, DSE 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.

Figure 24: 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*

The following table (figure 25) is a summary of the type of stakeholder (from figure 24) and the fire management responsibility of those stakeholders (from figure 23) in Murrindindi Shire.

Figure 25: Murrindindi Shire and Lake Mountain MFMPC Stakeholder Analysis

Stakeholder	**Type**				**Fire management role within Hume region**									
	Internal	Primary	Secondary	Tertiary	Fire coord	Land mgr	Response	Recovery	Comm info	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
Murrindindi Shire Council		✓				✓	✓	✓	✓	✓	✓	✓		
Lake Mountain Alpine Resort		✓				✓			✓		✓			
CFA		✓			✓		✓	✓	✓		✓	✓	✓	Fire safety expertise
DSE		✓			✓	✓	✓	✓	✓		✓	✓	✓	Forest fire expertise
Parks Victoria			✓			✓	✓	✓	✓		✓		✓	

Figure 25: Murrindindi Shire and Lake Mountain MFMPC Stakeholder Analysis														
Stakeholder	**Type**				**Fire management role within Hume region**									
	Internal	Primary	Secondary	Tertiary	Fire coord	Land mgr	Response	Recovery	Comm info	Comm care	Asset protect	Regulate	RSFMPC member	Other
Landcare Groups			✓			✓								
DHS			✓				✓	✓		✓			✓	
DPCD			✓					✓				✓	✓	Oversight of rural adjustment & development programs, development of planning controls
DPI				✓				✓					✓	Animal health, agricultural loss & recovery responsibilities
Victoria Police			✓				✓						✓	
SES			✓				✓						✓	
Vic Roads			✓			✓	✓				✓	✓	✓	
SP Ausnet			✓							✓			✓	
Rail Industry			✓			✓					✓		✓	
Goulburn Valley Water			✓							✓	✓		✓	
Goulburn-Murray Water			✓			✓					✓			
Telstra			✓							✓	✓		✓	
Optus			✓							✓	✓			
Melbourne Water				✓		✓					✓			
VFF				✓		✓								
AGL Hydro				✓		✓								
GBCMA				✓		✓		✓			✓	✓		
HVP				✓		✓	✓	✓			✓			

Figure 25: Murrindindi Shire and Lake Mountain MFMPC Stakeholder Analysis															
Stakeholder	**Type**				**Fire management role within Hume region**										
	Internal	Primary	Secondary	Tertiary	Fire coord	Land mgr	Response	Recovery	Comm info	Comm care	Asset protect	Regulate	RSFMPC member	Other
DEECD				✓						✓				
Ambulance Vic				✓						✓				
Media – Radio UGFM				✓			✓		✓					
Local community/industry groups				✓										
General public				✓		✓	✓	✓			✓			Responsibility for private property, social networks & personal well-being.
Rail Trail Group				✓		✓			✓					

Figure 26 (below) summarises how each stakeholder will be involved or consulted in the preparation of the MFMP. It utilises the IAP2 spectrum (see figure 5, section 2 of MFMP) to determine the level of contact and divides the stakeholders into Internal, Primary, Secondary or Tertiary (see figure 24 for more information).

Figure 26: Murrindindi Shire and Lake Mountain MFMPC Communication & Engagement Plan

Stakeholder	Engagement Level	Engagement activity								
		Meeting minutes, reports & agendas	1:1 consultation	IFMP & Murri Shire web site	Email updates	Media articles	Special meetings	Draft consultation	3 year review	Individual org networks
Internal Stakeholders										
Hume RSFMPC MEMPC MFMPC	Collaborate & empower	✓		✓	✓	✓	✓	✓	✓	
Primary – answerable for activity/decision										
Municipal Council/Alpine Resort Board CFA DSE	Collaborate & empower	✓	✓	✓	✓	✓	✓	✓	✓	✓
Secondary – Contributory responsibility										
Parks Victoria DHS DPCD Victoria Police SES Vic Roads SP Ausnet Rail Industry Goulburn Valley Water Goulbourn-Murray Water Relevant water authority Telstra Optus Landcare Groups WICEN (Wireless Institute Civil Emergency Network)	Involve & consult		✓	✓		✓	✓	✓	✓	✓

Figure 26: Murrindindi Shire and Lake Mountain MFMPC Communication & Engagement Plan										
Stakeholder	**Engagement Level**	**Engagement activity**								
		Meeting minutes, reports & agendas	1:1 consultation	IFMP & Murri Shire web site	Email updates	Media articles	Special meetings	Draft consultation	3 year review	Individual org networks
Tertiary - Interested										
Melbourne Water	Inform & consult			✓		✓		✓	✓	
DPI										
VFF										
GBCMA										
HVP										
DEECD										
Ambulance Vic										
Media										
Local community/industry groups										
General public										
Rail Trail Group										

Attachment 3: Environmental Scan maps & data

Map 1: Murrindindi Shire Burnt Area (Bushfire) 1939-2011

- This map shows the area burnt in Murrindindi Shire from 1939-2011

Map 2: Murrindindi Shire Burnt Area (Fuel Reduction) 2002-2011

- This map shows the area of DSE fuel reduction burning or 'treatments' in the last 10 years

Map 3: DSE Fire Management Zones in Murrindindi Shire

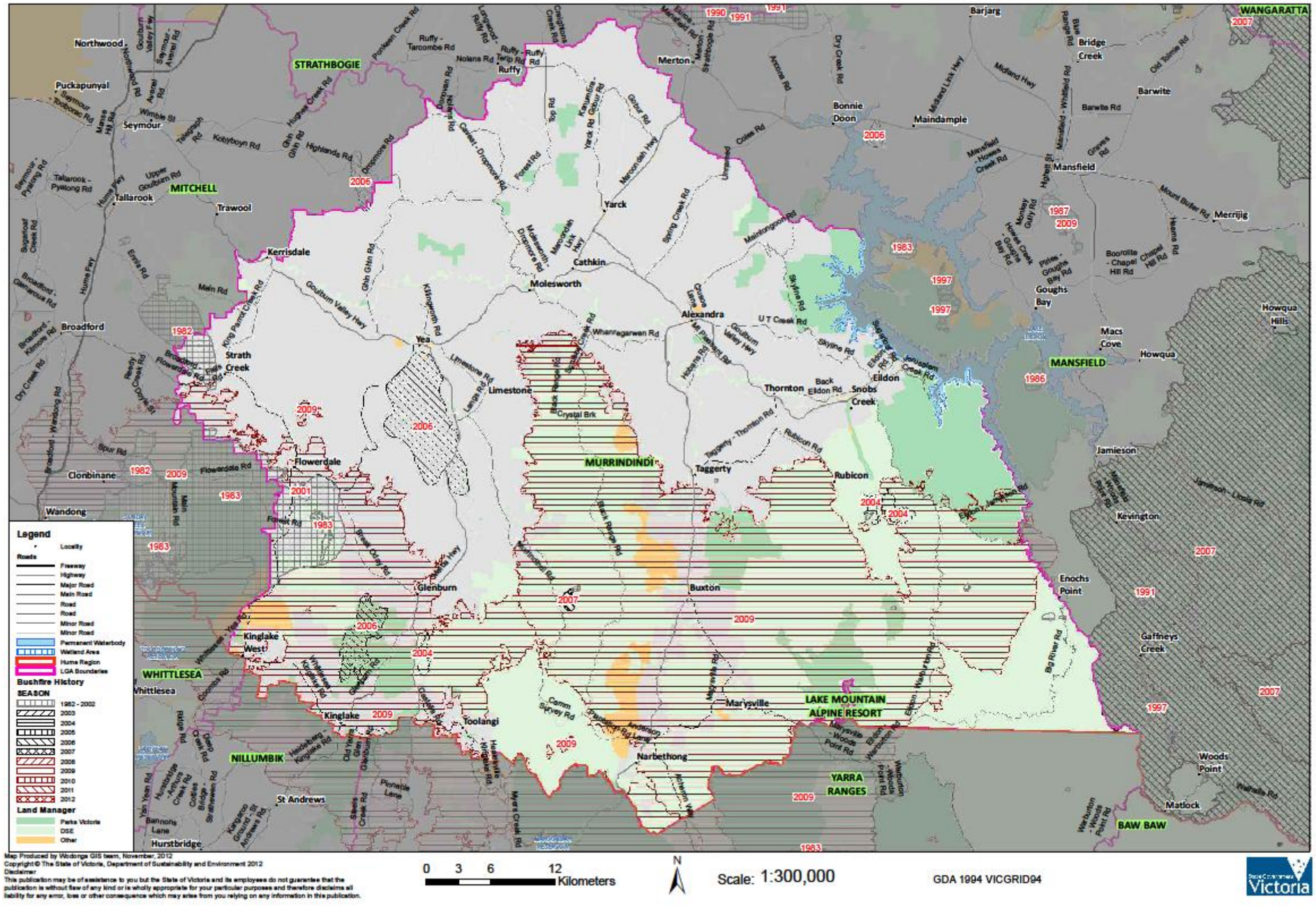
- This map details DSE's fire management zones. Different management regimes are used in each zone. There are four distinct DSE fire management zones. These are:
    - **Asset Protection Zone (APZ):** This zone aims to provide the highest level of localised protection to human life, property and highly valued assets. Through reducing radiant heat, flame front and ember attack to a reasonable level using intensive fuel management. Fuel management will be carried out in the APZ through a combination of planned burning, and other methods such as mowing or slashing.
    - **Strategic Wildfire Moderation Zone** (**SWMZ):** This zone aims to reduce the speed and intensity of future bushfires. This zone complements the APZ, and also provides strategic areas to mitigate risk through the landscape. The use of planned burning in the SWMZ is designed to protect nearby assets from ember spotting during a bushfire.
    - **Ecological Management Zone (EMZ):** This zone aims to promote biodiversity and ecological renewal. Planned burning will be used to manage native species and ecological communities which require fire to regenerate. This also assists with fire protection outcomes by reducing the overall fuel hazard in the landscape.
    - **Prescribed Burning Exclusion Zone** (**PBEZ):** This zone excludes the use of planned burning, primarily in order to protect biodiversity – for example, fire sensitive rainforest.

Map 4: Biodiversity Values in Murrindindi Shire

- This map details the Biodiversity values of the Murrindindi 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 1: Murrindindi Shire Burnt Area (Bushfire) 1939-2011

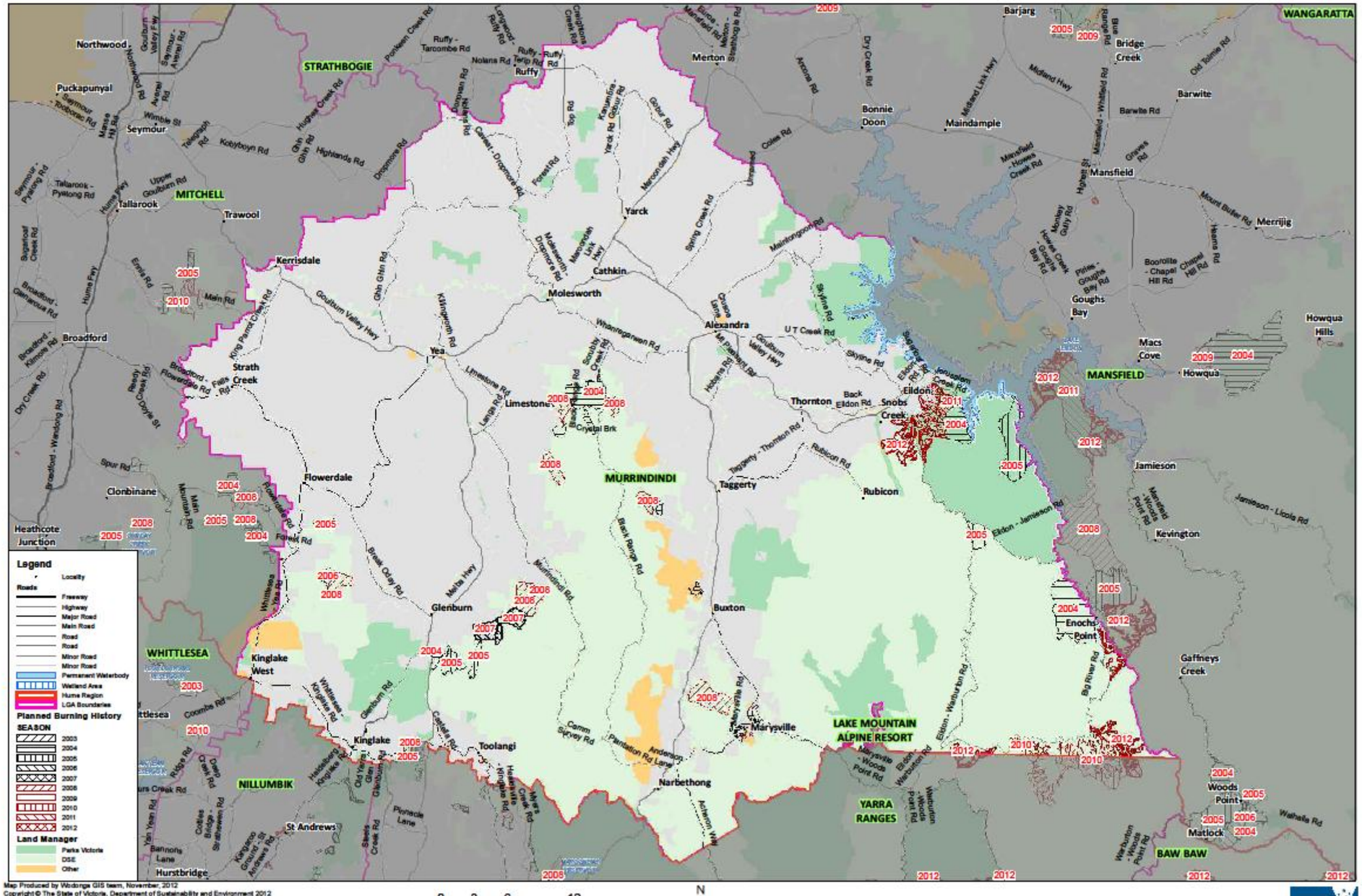
Date: 29/11/2012



Map Produced by Wodonga GIS team, November, 2012

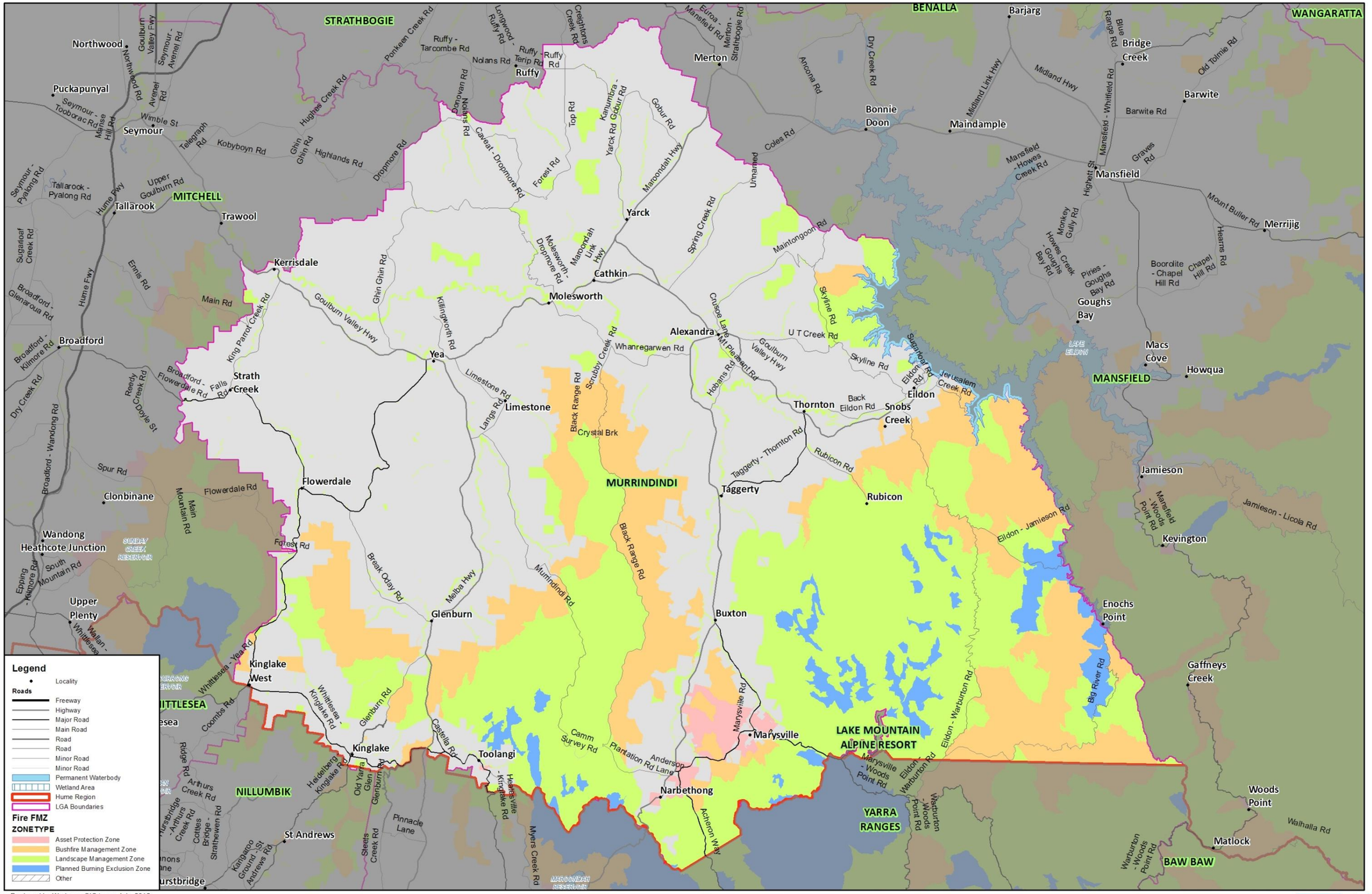
Map 2: Murrindindi Shire Burnt Area (Fuel Reduction) 2002-2011

Date: 29/11/2012

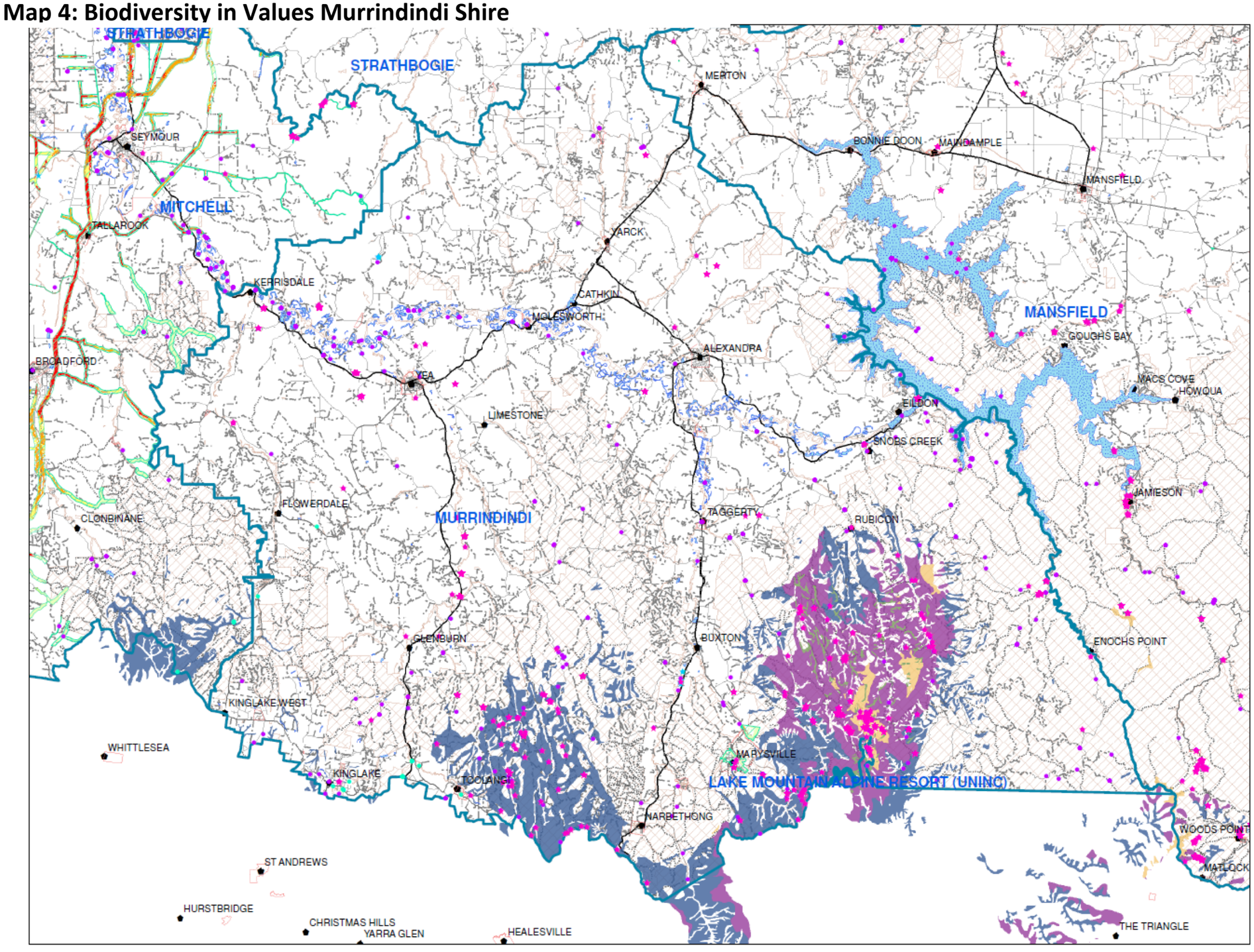


Map 3: DSE Fire Management Zones in Murrindindi Shire

Date: 26/07/2012



Map 4: Biodiversity in Values Murrindindi Shire



Legend

- EPBC Act listed Fauna
- FFG Act listed Fauna
- EPBC Act listed Flora
- FFG Act listed Flora
- Endangered
- Vulnerable
- Depleted
- Least Concern
- Vegetation Protection Overlay

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: 26/06/2012

Scale: 1:300,000

State Government Victoria

Attachment 4: Hazard Trees –Identification 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 or 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 VicRoads.

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 Murrindindi Shire

As a result the electricity distributor becomes the "Primary Responsible Person"

Responsible Persons within the Shire of Murrindindi.

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

Other relevant information

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

Municipal Fire Prevention Strategy (MFPS) amended February 2011, section 4.06, is currently under review with the development of the Murrindindi Shire Municipal Integrated Fire Management Plan due for completion December 2012.

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 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**) 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 Council 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 reasons given for the tree being identified as potentially hazardous (eg. Tree is in proximity to an electric line AND there is evidence of structural weakness and/or excessive lean and/or appears to be encroaching into line clearance space etc.)

    - An indication of whether or not urgent action is required.

- The PRPR must take all necessary steps to advise the person responsible for the tree that it may be hazardous.

Primary Responsible Person Representative (PRPR)

For the purposes of this part of the Plan, the primary responsible person is 'Sp AusNet' with responsibility for the power lines within the Local Government Area – Murrindindi Shire

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 4416 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- (24hr 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:

Step 1	Report provided to PRPR	
Step 2	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.)	
Step 3	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
Step 4	Did the report indicate that urgent action is required?	**Yes+>** the responsible person should be notified as soon as possible, and by 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 timelines below.*

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

Reporting Timelines

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

In circumstances where:

- the potentially hazardous tree is located within a high bushfire risk area (as per s.80 of the 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 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 whom reports should be provided. It is the responsibility of each responsible person to ensure that the PRPR is provided with up-to-date contact details.

Register

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

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

PRPR Consultation

The Committee notes that the Primary Responsible Person was consulted in relation to the development of these procedures.

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Attachment 5: Community Information Guides (formerly known as Township Protection Plans & Neighbourhood Safer Places

Community Information Guide (CIG):
CIGs 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. These plans address the specific needs of the town's people, their safety and pre-planning, property preparation, asset protection, environment and economy, and are typically divided into 3 parts: a) Community Information. b) Township planning factors. & c) Fire Prevention

CIGs have been completed and are available for the following towns in the Murrindindi Shire:

- Flowerdale and Hazeldene
- Toolangi and Castella
- Kinglake
- Eildon

The above list of CIGs was accurate at the time of printing, however new CIGs may have been produced since that time and the most up to date list of CIGs can be found at the CFA website at:

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

It should be noted that these are proposed treatments only for the next 3 years, and that actual implementation in any given year may be influenced by a variety of factors such as availability of resources and seasonal conditions.

Neighbourhood Safer Place (NSP):
Neighbourhood Safer Places are a place of last resort and do not guarantee safety. They should only be used if a resident's Bushfire Survival Plan (see link below for more information) 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

For more information on Bushfire Survival Plans go to the CFA Website:

- www.cfa.vic.gov.au/firesafety/bushfire/survival-plan/index.htm

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

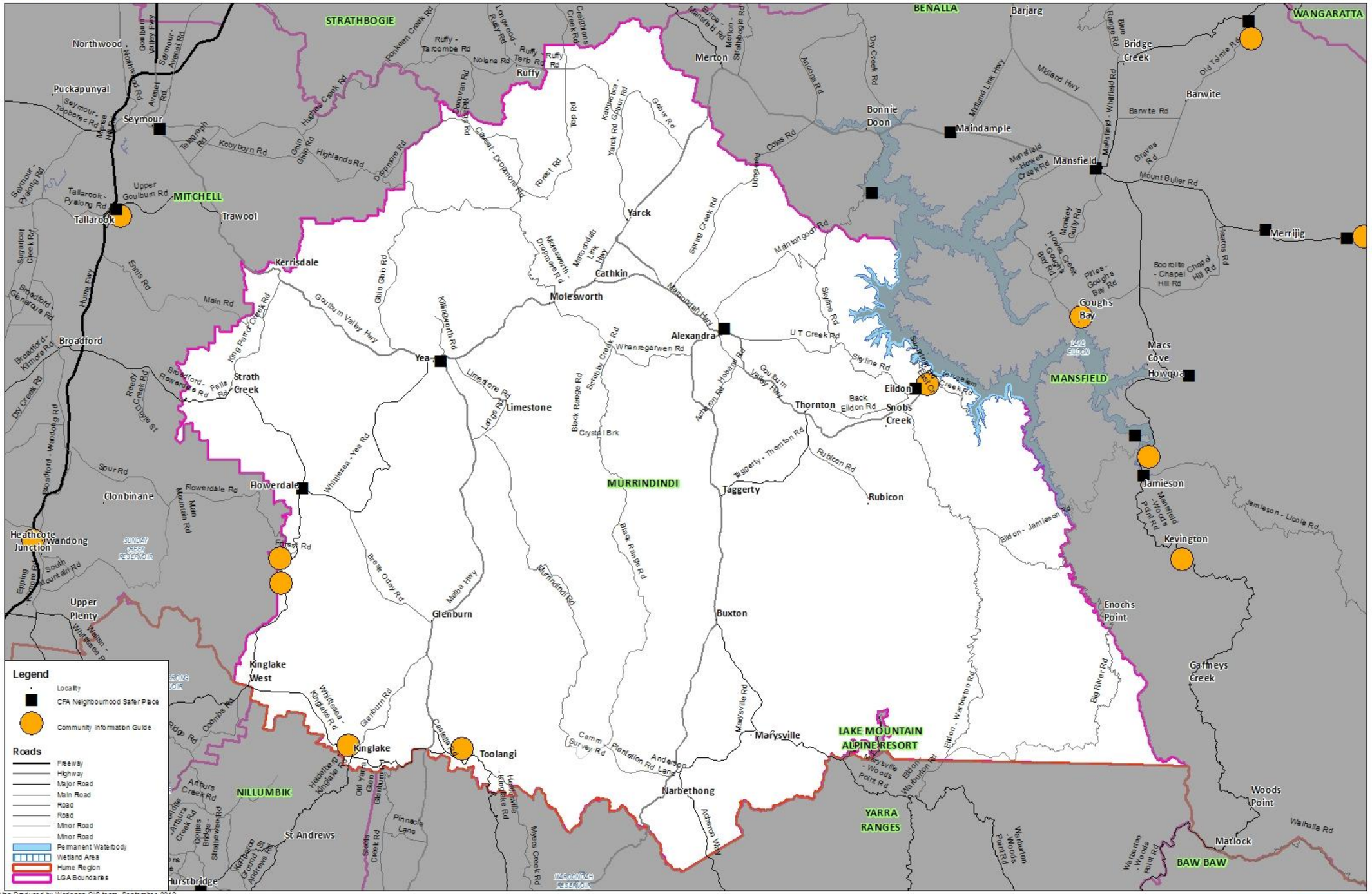
Town	Location	Address	Map
Alexandra	Leckie Park	Station Street (opposite Lamont Street) Alexandra 3714.	
Eildon	Eildon Basketball Courts Open space	Corner Centre Avenue and Main Street Eildon 3713.	
Flowerdale	Flowerdale Hall	Whittlesea-Yea Road opposite Broadford-Flowerdale Road Flowerdale 3717.	
Yea	Yea Skate Park	Station Street (Melba Highway) opposite Mary Street Yea 3717.	

The above list of NSPs was correct at the time of printing. However, new NSPs may have been declared since that time. The most up to date list of NSPs can be found on the Murrindindi Shire Website:

- www.murrindindi.vic.gov.au/Your_Council/Emergency_Management/Neighbourhood_Safer_Places_-_a_place_of_last_resort

Neighbournood Safer Places & Community Information Guides - Murrindindi Shire

Date: 11/09/2012



Attachment 6: Glossary

Term	Description
ABS	Australian Bureau of Statistics
AFAC	Australian Fire and Emergency Services Authorities Council
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. The BMO has been introduced to replace the Wildfire Management Overlay by the Department of Planning and Community Development. The provisions of the BMO ensure that development in areas that may be affected by bushfire can only take place after bushfire issues have been considered. This includes the location of a building on the site, emergency access and fire-fighting water supply. The BMO requires that new development implements appropriate bushfire protection measures. If risk to life and property from bushfire cannot be reduced to an acceptable level the development cannot proceed. The BMO includes a statutory provision in planning schemes and a map showing where the provisions apply. The requirements for development in a BMO are specified in planning schemes. A planning permit issued under the BMO must include a condition that requires the landowner to maintain bushfire protection measures in perpetuity
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

Term	Description
	and the existence of conditions conducive to the spread of fire.
Bushfire Management	All those activities directed to prevention, detection, damage 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.
CIG	Community Information Guide (formerly Township Protection Plan)
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.
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
DHS	Department of Human Services
DOT	Department of Transport
DPCD	Department of Planning and Community Development
DPI	Department of Primary Industries
DSE	Department of Sustainability and Environment
EHO	Environmental Health Officer – Council
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

Term	Description
	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
G-MW	Goulburn-Murray Water
GVW	Goulburn Valley Water
Hazard	A source of potential harm or situation with a potential to cause loss. A potentially damaging physical event that may cause loss of life or injury, property damage, social and economic disruption or environmental degradation.
Hazard Layer – DSE	Hazard layer developed and maintained by DSE, 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

Term	Description
	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 Plan
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.
Municipal Area	The geographic footprint of the relevant LGA/ARMB
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)

Term	Description
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.
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	StateNet 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
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 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

Term	Description
	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. (DHS)
WMO	Wildfire Management Overlay. Replaced by the Bushfire Management Overlay (see BMO above for more details)
WTP	Water Treatment Plant

Attachment 7: Excerpts From Murrindindi Municipal Fire Prevention Plan:

Due to the historical nature of the source document any recommended treatments, actions or priorities contained within this attachment are included for temporary guidance only, and should not be considered as being endorsed or attributable actions for any individual current member organisations of the MFMPC.

The following excerpts (1-7) are taken directly from the Murrindindi 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 however due to the historical nature of the source document any recommended treatments, actions or priorities contained within this attachment are included for temporary guidance only, and should not be considered as being endorsed by or attributed to any individual current member organisations of the MFMPC.

A: Structural Fire

Dwellings

Context

The residential population of the Municipality is spread with widely varying density throughout its length and breadth. The majority of the population of the Municipality resides within the towns of Alexandra, Buxton, Eildon, Flowerdale, Kinglake, Kinglake West, Marysville, Thornton, Taggerty, Toolangi, and Yea and the rural districts of Acheron, Castella, Cathkin, Glenburn, Highlands, Homewood, Kerrisdale, Koriella, Pheasant Creek, Molesworth, Narbethong, Strath Creek, Terip Terip, and Yarck.

There is a wide diversity of life styles and dwelling types within the general population.

Statistics indicate that burns and other associated injuries, particularly to children, occur far too frequently and the highest cause of fire related death originate from fires in the home.

Risks

Risk	Details	Loss of Life	Property Loss	Personal Injury
	Rating	Significant	High	Moderate
Objective		Prevent loss of life	Minimise incidence and severity.	Minimise incidence and severity

Strategies, Programs and Actions

Treatment/Program/Action	Responsibility	Others Involved	Time Frame	Action taken
MFPO to coordinate media updates on MFPC program matters.	MFPO	CFA & Brigades	Autumn & Winter, ongoing.	Ongoing

Treatment/Program/Action	Responsibility	Others Involved	Time Frame	Action taken
MFPO to use Community Radio to provide information and to build upon existing programs.	MFPO	CFA & Fire Brigade Groups	Ongoing.	Ongoing

Townships (Residential-General)

Context
This risk environment includes all the land and outbuilding surrounding dwellings. It does not include other types of buildings or uses.

The major townships within the Municipality are; Alexandra, Buxton, Eildon, Flowerdale, Kinglake, Kinglake West, Marysville, Thornton, Taggerty, Toolangi, and Yea and the rural districts of Acheron, Castella, Cathkin, Glenburn, Highlands, Homewood, Kerrisdale, Koriella, Pheasant Creek, Molesworth, Narbethong, Strath Creek, Terip Terip, and Yarck.

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, absentee owners (holiday homes) and in many cases are heavily treed. 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.

The vegetation patterns throughout towns tend to restrict the ability to maintain clearance to exposed aerial power conductors, hence requiring regular inspection programs.

The towns of Alexandra, Buxton, Eildon, Marysville, Molesworth, Thornton, and Yea are provided with a reliable reticulated water supply that is available for fighting purposes. The availability of the supply needs to be regularly checked to ensure its continued availability at all points within the Township.

Risks

Risk	Details	Loss of Life	Property Loss	Personal Injury
	Rating	Moderate	Low (due to current treatment Practise)	Low
Objective		Prevent loss of life	Minimise incidence and severity.	Minimise incidence and severity

Strategies, Programs and Actions

Treatment/Program/Action	Responsibility	Others Involved	Time Frame	Action taken
MFPO to undertake property inspections under Section 41 of the CFA Act. (The timing of the inspections to be reviewed annually by the MFPC)	MFPO	Owner / Occupier	–November-March	Ongoing

Treatment/Program/Action	Responsibility	Others Involved	Time Frame	Action taken
MFPO to ensure that fire plugs, reflectors and markers maintenance is undertaken.	MFPO	Brigades	July-November Annual Maintenance Program	Ongoing

Industrial and Commercial

Context
There are a number of industries within the Municipality that are generally located close to their supply of raw materials. The major industries at risk are the timber processing plants, timber preservation 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.

There are a number other depots and industries that are located within the Industrial zones of the townships of Alexandra, Eildon, Kinglake, Marysville, and Yea where smaller amounts of dangerous goods are stored. 'This has in turn led to an abundance of chemicals and dangerous goods being stored and used throughout the Municipality. Storage volumes are generally very low and therefore their use is not obvious to anyone other that 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.

Risks

Risk	Details	Loss of Life	Property Loss	Personal Injury	Environmental Damage
	Rating	Significant	High	Moderate	Moderate
Objective		Prevent loss of life	Minimise incidence and severity.	Minimise incidence and severity	Minimise incidence and severity

Strategies, Programs and Actions

Treatment/Program/Action	Responsibility	Others Involved	Time Frame	Action taken
MFPO to liaise with MBS to ensure Essential Service Register inspections are being undertaken as required under the Building Act & Regulations	MFPO	MBS	Annual Report provided to MFPO	Ongoing
Brigades encouraged to report identified problems/concerns/risks/hazards to MFPO	Brigades	MFPO	Ongoing.	Ongoing

Treatment/Program/Action	Responsibility	Others Involved	Time Frame	Action taken

Commercial

Context
The major Commercial Centres within the Municipality are located within the towns of Alexandra, Eildon, Kinglake, Marysville, and Yea; with isolated establishments located within the other Villages and Hamlets. There are a number of risks associated with the occurrence of fire related to these commercial centres that include; a higher concentration of flammable materials and the proximity to other similar premises. The loss of these premises as a result fire, may result in major economic loss 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. There are a number of locations where timber Commercial Premises abut each other without fire separation and also have poor access.

The general Kinglake Ranges area(including Flowerdale, Kinglake, Kinglake West and Toolangi areas) has no reticulated water supply and hence this area has poor water availability for fighting major fires.

Risks

Risk	Details	Loss of Life	Property Loss	Personal Injury	Environmental Damage
	Rating	Moderate	Significant	Moderate	Low
Objective		Prevent loss of life	Minimise incidence and severity.	Minimise incidence and severity	Minimise incidence and severity

Strategies, Programs and Actions

Treatment/Program/Action	Responsibility	Others Involved	Time Frame	Action taken
MFPO to liaise with MBS to ensure Essential Service Register inspections are being undertaken as required under the Building Act & Regulations.	MFPO	MBS	Annual Report provided to MFPO	Ongoing
Brigades encouraged to report identified problems/concerns to MFPO for attention	Brigades	MFPO & CFA	Ongoing.	Ongoing

Treatment/Program/Action	Responsibility	Others Involved	Time Frame	Action taken
Fire Prevention pamphlets/brochures to be left by Brigades when servicing Extinguishers	Brigades	CFA	Ongoing	Ongoing

Public Accommodation and Tourist Facilities

Context
The nature and range of these types of facilities varies greatly across the Municipality. The type, size and age of the premises have 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 a lack of 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 life).

Risks

Risk	Details	Loss of Life	Property Loss	Personal Injury
	Rating	Significant	Significant	Significant
Objective		Prevent loss of life	Minimise incidence and severity.	Minimise incidence and severity

Strategies, Programs and Actions

Treatment/Program/Action	Responsibility	Others Involved	Time Frame	Action taken
MFPO to liaise with MBS to ensure Essential Service Register inspections are being undertaken as required under the Building Act & Regulations.	MFPO	MBS	Annual Report provided to MFPO	Ongoing
Brigades encouraged to report identified problems/concerns to MFPO	Brigades	MFPO	Ongoing.	Ongoing

Public Assembly

Context
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 unfamiliar with their surroundings. These premises have varying standards of maintenance, and have a varying or lack of 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 premises.

Risks

Risk	Details	Loss of Life	Property Loss	Personal Injury
	Rating	Moderate	Low	Significant
Objective		Prevent loss of life	Minimise incidence and severity.	Minimise incidence and severity

Risks, Strategies, Programs and Actions

Treatment/Program/Action	Responsibility	Others Involved	Time Frame	Action Taken
Maintain the Council database of all Public Assembly/Relief Centre premises as specified in Section 7.02 of the Municipal Fire Prevention Strategy (MFPS).	MFPO	MBS	Ongoing	Ongoing

Transport

Context
The Goulburn Valley Highway, Maroondah Highway, and Melba Highway traverse the Municipality. These roads are critical to the economy of the region and provides significant opportunity for future economic development. These transport links 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 is the requirement for the road to be able to provide safe passage for vehicles during a wild fire and to provide an area for refuge on the road shoulder.

There are a wide variety of dangerous goods transported with the ever-present potential for incidents involving loss or damage to those goods.

The vegetation on the road reserve varies significantly from open grassland to that of the bushed hills, giving a wide range of risk environments and hence the associated treatments must vary accordingly.

Risks

Risk	Details	Loss of Life	Property Loss	Personal Injury	Environmental Damage
	Rating	Significant	Significant	Low	Significant
Objective		Prevent loss of life	Minimise incidence and severity.	Minimise incidence and severity	Minimise incidence and severity

Risk Environments, Strategies, Programs and Actions

Treatment/Program/Action	Responsibility	Others Involved	Time Frame	Action taken
MFPO to undertake appropriate annual roadside maintenance works in accordance with the Municipal Fire Prevention Strategy Plan.	MFPO	CFA & Brigades	September-December	Ongoing
MFPO to liaise with Vic Roads to ensure they undertake appropriate annual highway maintenance works.	MFPO	Vic Roads	September-December	Ongoing

Vic Roads requires that local landholders and Brigades wishing to undertake fire prevention work along the road frontage of Highways and Freeways under the direct control of Vic Roads must obtain their approval prior to undertaking any work. (It should be noted that no new ploughed or graded fire-breaks will be approved).

Special Risks

Context
Each Fire Brigade within their own locality will identify these risks. These identified risks should have adequate water storage for fire fighting purposes, appropriate fire suppression equipment, suitable public egress and ready access provided for Fire Fighting Vehicles at the site. Most of the Special Events are held during the summer time, which adds further complexity to the risk.

The following specific sites/events have been identified:
Special Public Events and Festivals
Occasional/annual public entertainment
Agricultural Shows

The illegal discharge of fireworks has the potential to threaten both life and property and the risk is exacerbated due to their use at times when response level is at its lowest.

Risks

Risk	Details	Loss of Life	Property Loss	Environmental Damage
	Rating	High	Moderate	Significant
Objective		Prevent loss of life	Minimise incidence and severity.	Minimise incidence and severity

Risks, Strategies, Programs and Actions

Treatment/Program/Action	Responsibility	Others Involved	Time Frame	Action taken
The provision of CFA approved fire prevention information (obtained from Event Management Plan) to be made available to the public by Event Operators, Police, Brigades and Parks Victoria.	Municipality	CFA & MFPO	As required	Ongoing

Treatment/Program/Action	Responsibility	Others Involved	Time Frame	Action taken
Ensure Community when staging significant events requiring Organisers to submit an Event Management Plan for approval, that it be developed in consultation with the Local Fire brigade, four weeks prior to the event. Plans to include fire related risk issues. Local Brigades and/or DSE to be notified/consulted of events as part of the permit issuing process.	MFPO	Planning Authority/CFA/ Brigades	As required	Ongoing
The provision of Occupancy Permits for Places of Public Entertainment and Public Structures	MBS	MFPOBS	As required	Ongoing
Enforcement of Local Laws and Planning controls for illegal events.	MFPO	Planning Authority & MBS	As required	Ongoing

In this section, all of the above risks, strategies, programs and actions are included in the Events Management template criteria

B: Public Safety

It is generally accepted that the home should be safe from fire. However recent experience has shown that, without adequate attention to the removal of hazards and proper construction practices, the home may offer limited protection.

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 CFA encourages people to remain with their homes where these premises have been properly prepared and protected. Planned and timely evacuation with appropriate notice is required where the decision to leave has been made. There is a clear onus 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.

It is critical that if evacuation is planned, that it be undertaken well in advance of the approach of the fire front. Late evacuations must be avoided, as they can prove fatal.

Currently, Murrindindi Shire has no fire refuges within the boundaries of the municipality.
Assembly Areas & Relief Centres
Council intends to continue to work closely with the community and emergency agencies to ensure that every possible step is taken to ensure that the Murrindindi community is safe.

This is a partnership that relies upon all parties becoming involved.

Community Preparedness
Particular emphasis is being placed on bushfire preparedness and we acknowledge that in Murrindindi, major emergencies may include wide spread storm damage and floods.

Experience from past wide spread major emergencies, shows that emergency services may be stretched to the limit at these times. They cannot provide total support to all members of the community at the same time. Households, neighbourhoods, townships and residents, need to be aware and be well prepared for their own safety.

Emergency Relief Centres

Emergency relief centres have been identified and will be opened as required at the earliest opportunities at safe locations to provide important information, catering first-aid and short term accommodation for people affect in the event of an emergency.

Name	Location
Alexandra - Leisure Centre - Secondary College Hall	 Downey Street, Alexandra Hall Street, Alexandra
Buxton - Community Centre	Maroondah Highway, Buxton
Eildon - Community Health Centre	Centre Avenue, Eildon
Flowerdale - Community Hall - Recreation Reserve	 Whittlesea/Yea Rd, Flowerdale Spring Valley Rd, Flowerdale
Glenburn - Community Hall	 Melba Hwy, Glenburn
Highlands - Community Hall	 Ghin Ghin Rd, Highlands
Kinglake - Community Centre	 Exton's Rd, Kinglake Central
Kinglake West - Primary School	Whittlesea/Kinglake Rd., Kinglake West
Marysville - Golf Clubrooms	956 Buxton/Marysville Rd, Marysville
Molesworth - Community Hall	Goulburn Valley Hwy, Molesworth
Strath Creek - Community Hall	Broadford/Flowerdale Rd., Strath Creek
Taggerty - Community Hall	Thornton/Taggerty Rd, Taggerty
Thornton - Memorial Hall	Thornton/Taggerty Rd., Thornton
Toolangi - Community Hall	Healesville/Kinglake Rd Toolangi
Yarck - Community Hall	Maroondah Hwy, Yarck
Yea - Secondary College Hall - Shire Hall	 Racecourse Rd, Yea High Street, Yea

C: Fuel Reduced Corridors and Priority Access Roads

General
It is acknowledged that Fire Brigades may identify and undertake treatments on roads as Fuel Reduced Corridors within their own brigade boundaries, which may not necessarily be identified in the Municipality Strategy. Approval of Vic Roads must be obtained prior to undertaking any works undertaken on the Declared Road network. These Fire Prevention works are not always undertaken annually, however all such works are undertaken specifically to minimise the threat to life and property from uncontrolled wildfire. The works that have been undertaken in the past form an integral part of the Fire Prevention Strategy of the Municipality and are supported by this document.

Individuals can undertake works on road reserves if the work forms part of either a Brigade Fire Prevention Plan or the Municipal Fire Prevention Strategy. Brigade Fire Prevention Plans must be endorsed by the Municipality in consultation by the MFPC.

Fire Brigades are encouraged to submit annually to the Council for consideration by the MFPC, prior to the Fire Season, details of proposed and ongoing Fuel Reduction Works proposed to be undertaken on roads and/or reserves.

All works are to be undertaken in accordance with the details following.

Fuel Reduced Corridors
Fuel Reduced Corridors must be sufficiently fuel-reduced, in accordance with appropriate native vegetation management practices, to provide a safe corridor for the travelling public, provide a means of establishing a control line, reduce the time of travel to low-risk areas and to slow the spread of fire on the road reserve.

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:

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 (including drains and batters), or next to or inside the adjoining property, at the appropriate time to prevent regrowth and accumulation of dry slashed material.

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.

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.

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.

** The CFA's current policy in relation to brigades conducting burn-offs is to be adhered to by local brigades.

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.

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

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

Fuel Reduced Corridors are to be identified in Brigade Fire Prevention Plans. Both the Council and Brigades may undertake works on these roads as resources permit.

The following Fuel Reduced Corridors have been identified:

Back Road Eildon.
Break O'Day Road
Connellys Creek Road.
Dairy Creek Road.
Gobur Road.
Ghin Ghin Road.
Highlands Road Top section up to the school.
Langs Road.
Limestone Road.
King Parrot Creek Road
Maintongoon Road.
Molesworth-Dropmore Road. (Bottom Section)
Murrindindi Road.
Rubicon Road.
Snobs Creek Road.
Spring Creek Road.
Taggerty-Thornton Road.
Taits Road.
UT Creek Road.
West bridge Road up until Captains Creek Road.

Whanregarwen Road.

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

VicRoads has undertaken a Roadside Bushfire Risk Assessment and has proposed treatment options which ensure all identified Priority Access Roads are inspected and that a systematic program is undertaken to improve road safety to meet its obligations to prevent fires on roadsides and contain roadside fires as required by the CFA Act 1958 (Section 43).

An annual works program, including any additional priority works due to weather conditions or other factors, is prepared and reviewed annually in consultation with the MFMPC and Council.

The following Priority Access Roads have been identified:

Goulburn Valley Highway
Maroondah Highway
Taggerty-Thornton Road
Buxton-Marysville Road
Broadford-Flowerdale Road
Whittlesea-Kinglake Road

Maroondah Highway Link	Marysville-Narbethong Road	Healesville-Kinglake Road
Melba Highway	Whittlesea-Yea Road	Heidelberg-Kinglake Road

It is recognised that all the roads listed above are under the direct control of Vic Roads and the works that are carried out on these roads are at the discretion of Vic Roads.

Fire Access Roads

These roads are required to provide summer access for fire fighting vehicles and will be maintained by the Council or other Appropriate Statutory Authority accordingly, prior to the summer period. Much of the work carried out on these roads forms part of the Municipalities general requirement for road maintenance as these roads service ratepayers. The roads that require maintenance specifically for Fire Access Purposes are identified with an asterisk (*).

The following Fire Access Roads have been identified:

Fire Brigade District	**Roads**
Acheron	Yellow Box Ridge Road Connelly's Creek Road (Jackels Driveway to Glendale Lane)
Alexandra	*UT Creek crossing near Briggs Oval
Buxton	South Cathedral Lane (to Mt Margaret Rd) Williams Lane Gypsy Lane Passing Lane Dyes Lane
Eildon	*Karralika Heights track to Taylor Bay Taylor Bay Roads - left & right arms Darlingford Harbour to Jerusalem Creek Road Tea Tree Drive * Eildon Fire Track
Granton	Granton Fire Break
Koriella	Parsons Lane Hodsons Lane *McGuigans Road *Taits Lane Stoney Creek Road Old Fawcett Road Minterns Lane Durhan Lane
Marysville	Marysville Township Firebreak
Taggerty	Cathedral Lane Connellys Creek Road Swamp Creek Road

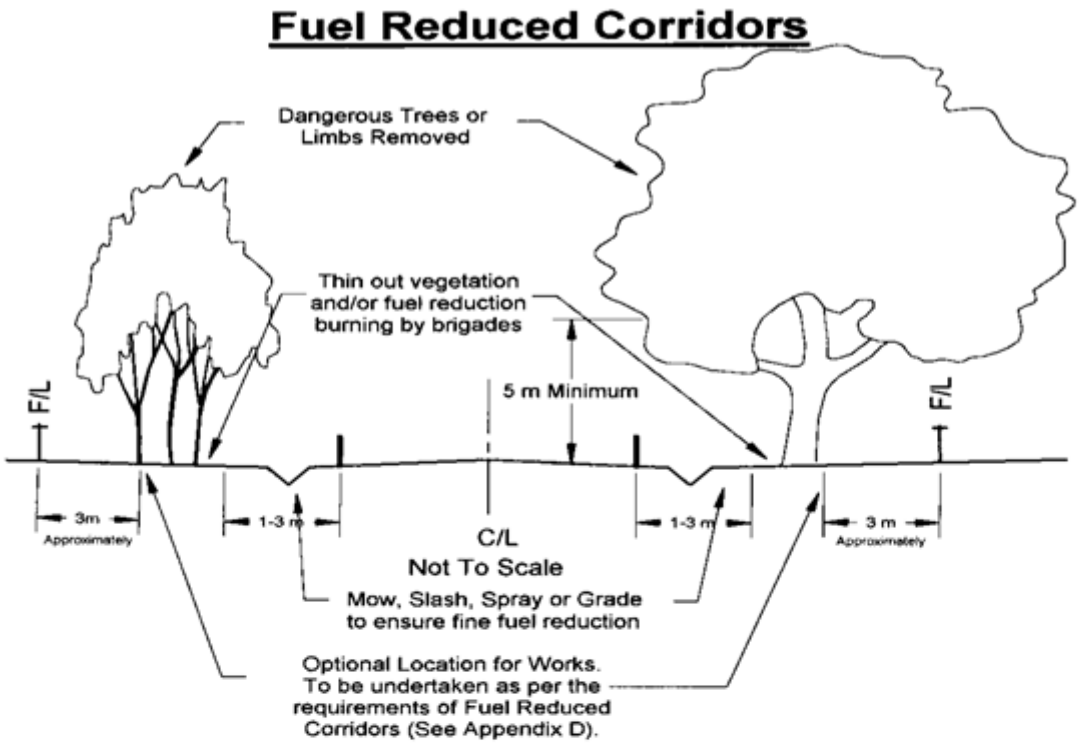
Fire Brigade District	Roads
Thornton	Bulls Lane Thoms Lane
Whangerarwen	*Grannies Lane
Yarck	*Continuation of Wrights Road to Taits Lane HodsonsLane Parsons Road
Highlands- Caveat	*Extension of Chisholms Rd & Spaniaks Road Old Ghin Ghin Road
Homewood	Guymers Road *Several fire access tracks along the Boundary Range - marked on map as the Yea Spur Track (Map 403 B Region 12) Three fire access tracks in Kerrisdale area next to Tallarook State Forest (Map 363 F Region 12) Currently need work & DSE
Kinglake	Captains Creek Road
Kinglake West	Burtons Road
Molesworth	*Abes Lane *Whites Lane *Native Dog Track
Strath Creek	*Tehans Track Callandoon Track
Toolangi	Old Toolangi Road Spraggs Road Dixons Creek Road
Yea	Hill Street Rifle Range *Whites Lane *Abes Lane *White's Lane *Native Dog to Tunnel Road

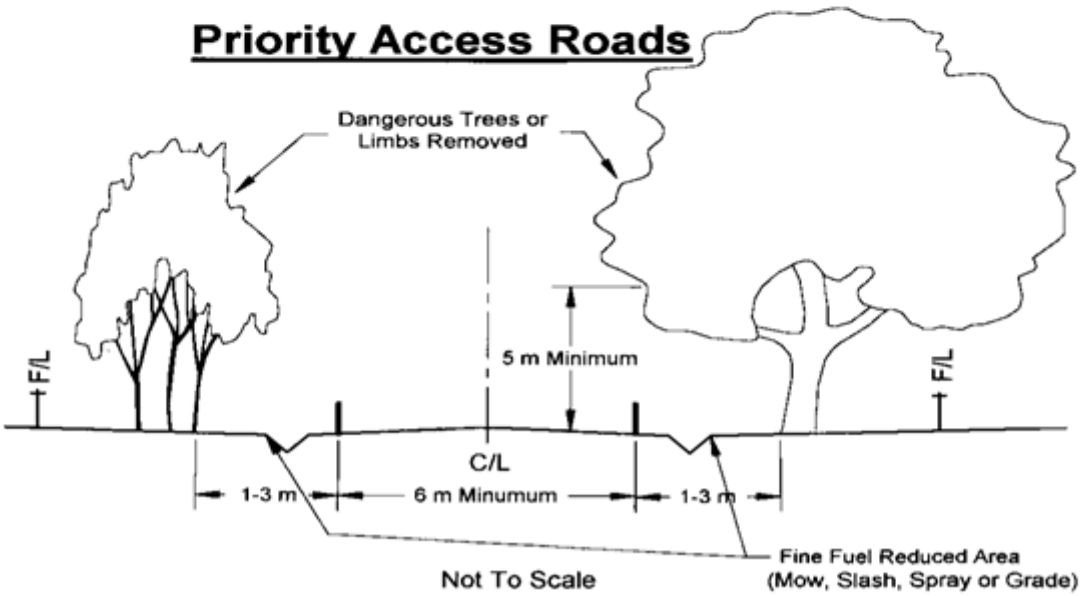
Township Maintenance

The Parks and Garden staff and contractors of the Murrindindi Shire Council, undertake mowing around the perimeter of a number of the townships within the Municipality. Whilst it is acknowledged that this work is undertaken primarily for beautification and aesthetic reasons, it is also recognised that this work reduces fuel loading in these locations and hence has a fire prevention component. The MFPO may request areas within and adjoining townships to be specifically included in these works.

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.





D: 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 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 shall complete fire hazard removal, reduction and isolation, including the clearing of blocks pursuant to Section 41 of the CFA Act, prior to the introduction of the Declared Fire Danger Period. This must include blocks that have been cleared and have regrown.

A Public notice shall be placed in the Council Noticeboard, advising the public as to their responsibilities for the removal of Fire Hazards from private land and the consequences of noncompliance. Appropriate notices shall be inserted in all local newspapers early to mid-November annually, reminding residents to remove fire hazards and construct fire breaks within the next four weeks. An advisory letter also may be sent to owners / occupiers of land that may be a fire hazard.

Priority will be given to urbanised areas and adjoining land, however action may be taken on any fire hazard within the Municipality.

Following the public notice, and depending on seasonal conditions, it is expected that the MFPO and appointed assistants and a local Fire Brigade Representative will commence formal inspections during spring, generally in early November. This must be in adequate time to ensure that all areas of the Municipality can be inspected some three weeks prior to the expected date of the fire danger period. Where the Officer forms an opinion that a fire hazard exists, a Fire Prevention Notice will be served in accordance with the CFA Act and Regulations. Owners who have not undertaken the works will then be issued with a Fire Prevention Notice.

Brigades are requested to bring fire hazards or potential hazards to the attention of the MFPO, or assistants, prior to the fire danger period, if possible.

Following the expiration of the allowed time for the work to be undertaken (generally 14 days), the MFPO will undertake a further inspection of the Townships. 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 may have infringement notices issued to them.

Urban Residential Allotments

It is recommended that 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 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 from the allotments and the adjacent half width of the street.

Larger Allotments Exceeding I Ha And Up to 20 Ha

Larger allotments, exceeding 1 hectare and less than 25 hectares, should have the fuel reduced by cutting, grading, removing, effective grazing and ploughing for a distance of 20 m around dwellings and other

assets, and an adequate strip around the boundary, or as deemed suitable by MFPO. Spraying, if undertaken at the appropriate time can be used to make these breaks.

Larger Allotments Larger Than 20 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. Adequate fire-breaks may be required to be implemented around external fence-lines of properties.

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.
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 should have a fire break or 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.

Rural Dwellings
Rural dwellings should be located and constructed in accordance with the '*Design and Siting Guidelines-Bushfire Protection for Rural Houses.*

E: Open Air Burning Local Law 1996

CURRENTLY BEING REVIEWED.

WICEN (Vic.) Inc.

REGION 4 DIVISION 4

P.O. Box 177, Alexandra Vic. 3714

24/09/2012

Mr. Matt Parsons
Manager Development Environmental Service
Murrindindi Shire Council
Chairperson
Murrindindi Shire and Lake Mountain Municipal
Fire Management Planning Committee

Re: Murrindindi Shire and Lake Mountain Draft Municipal Fire Management Plan

Dear Matt,

As the WICEN Divisional Coordinator and member of the MEMPC I make the following comments re the draft Murrindindi Shire and Lake Mountain Draft Municipal Fire Management Plan.

Amendment:
Page 3.1.2 the township of Marysville is spelt incorrectly "Maryville"

Page 61 (top of page) should read 'Figure 26 (below)' not Figure 25 (below).

Suggested amendments:

Page 27 figure 16 – Risk Assessment – ID# 16
I would suggest the 'Risk Group' also include the Emergency Services; 'Cause' can also be loss of optic fibre and/or radio links feeding site/s causing 'Impact' of wide area failure of mobile phone and wireless data (internet) services to various carriers. This occurred during 2009 when optic fibre ground pits/risers melted during passage of fire and all OPTUS & Vodaphone and much of Telstra services failed when Mt Gordon was burnt causing radio link failure. I would put the 'Risk' as medium to high and 'Likelihood' as possible.

Page 27 figure 16 – Risk Assessment – ID# 17
Again the 'Risk Group' will include the Emergency Services; 'Cause' can also be loss of optic fibre; this occurred during 2009 when optic fibre ground pits/risers melted during passage of fire, with 'Impact' causing failure telephone and data (internet) to the general public and govt., in Taggerty, Narbethong and Marysville telephone exchange areas. I would put the 'Risk' as medium and 'Likelihood' as possible.

Page 27 figure 16 – Risk Assessment – ID# 18
As indicated the 'Risk Group' is the Emergency Services; 'Cause' can be as simple impact on structure as happened during 2009 at Lake Mountain and Flowerdale where the heat from the fire passage melted antenna feeder cables causing loss of communications systems. 'Impact' could be a large area should radio links used at these transmission sites also be effected. I would put the 'Risk' as medium and 'Likelihood' as possible.

An additional Risk not included on page 27 figure 16 would be 'Risk of loss of Radio and TV broadcast services'.

The 'Risk Group' would be social and the cause could be any of the above except optic fibre (at present) as all services locally in the Murrindindi Shire are fed by radio links. UGFM lost two sites during 2009 at Mt Gordon and Flowerdale. However loss of mains power will affect some transmissions sites but not all as many have backup power generators, access for refueling maybe an issue. 'Impact' would be the loss of some ability to provide public with emergency information and reduce the Fire Services to effectiveness in alerting the public to the situation. I would put the 'Risk' as medium and 'Likelihood' as possible.

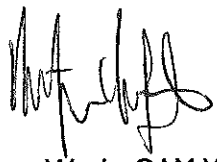
Attachment 2, figure 25.
Media should also be listed in 'Recovery' as did UGFM following 2009.

Page 61 Figure 26
'Secondary Stakeholder' should include 'WICEN'
WICEN are a provider of accredited volunteer Radio Operators and also provide backup and support radio communications utilizing Amateur Radio equipment, frequencies and networks for the Emergency Services and General Public until normal communications are restored, as they did for many weeks in NE fires of 2003 and Murrindindi during 2009.

Page 81 'List of Terms'
'WICEN' – Wireless Institute (Victorian Division) Civil Emergency Network – provides Radio Operators to Emergency Services and also backup and support radio communications for the Emergency Services and General Public until normal communications are restored.

I hope my input is of help.

Yours faithfully,



Peter Weeks OAM VK3YZP
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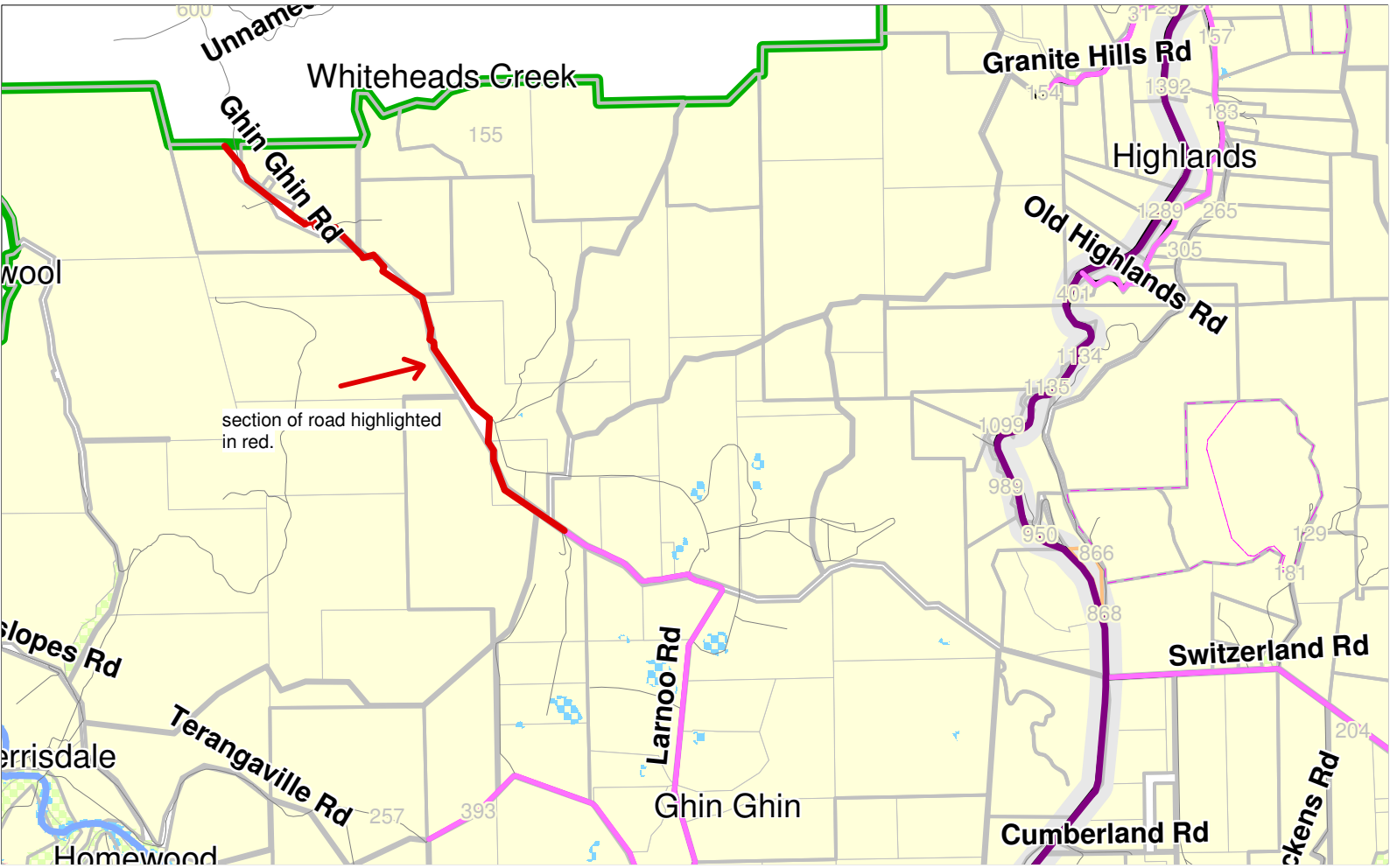
Whiteheads Creek
Ghin Ghin Rd
Granite Hills Rd
Highlands
Old Highlands Rd
section of road highlighted
in red.
Larnoo Rd
Ghin Ghin
Terangaville Rd
Switzerland Rd
Cumberland Rd
Homewood
155
257
393
157
183
265
305
401
1134
1135
1099
989
950
866
868
129
181
204

Section 86 Committee of Management
Committee Representation 2012

Murrindindi Shire Council

Organisation	AGM Date	Council Representative	User Group Representation - 2012	Membership 2012 Annual General Meetings	Fees & Charges 2012 AGM
Buxton Recreation Reserve Committee of Management	27/09/2012	Cr Christine Challen	Community Representative	Peter Cureton (Chairman)	Not Applicable
			Community Representative	Graham Eddy (Secretary)	
			Community Representative	Sue Lee (Treasurer)	
			Community Representative	Liz Amos	
			Community Representative	Clive Clayton	
			Community Representative	James Cowell	
			Community Representative	Graham Page	

C J Dennis & Castella Public Hall Reserve COM	27/09/2012	Cr Andrew Derwent	Community Representative	Perter McMahon (President)	Hall hire $15 per hour $100 All Day Event (including use of tea/coffee making facilities in meeting room) Kitchen $15 per hour, $10 per hour meeting room, Evening Functions $100 plus $100 bond (if kitchen is hired with venue $50 plus $100 bond
			Community Representative	Corina Horstra (Secretary)	
			Tennis Club Representative	Joanne Preistly (Treasurer)	
			Community Representative	Gordana Saric	
			Community Representative	Tabitha Barclay	
			CFA Representative	Nicola Rose	
			Community House Representative	(rotating position with TDCH)	

Note: The 2012 AGM process is the first time that Section 86 Committees of Management have presented fees to Council for endorsement.

Once the fees are adopted by Council they will be published on the Council website.

Eildon Alliance Boat Ramp Committee of Management	13/09/2012	Cr Bernie Magner	Community Representative	Chris Healy (Chairman)	Launching Fees: $2 per launch (daily fee), $7 per week, 6 Monthly $30, Annually $50
			Community Representative	Ron Maroney (Vice President)	
			Community Representative	TBA (Secretary)	
			Community Representative	Robyn Hewitt (Treasurer)	
			Community Representative	Garry Fox (Goulburn Murray Water)	
			Community Representative	Garry Constantine	
			Community Representative	Annie Crawford	
			Community Representative	Bill Peters (non-voting)	

Section 86 Committee of Management
Committee Representation 2012

Murrindindi Shire Council

Organisation	AGM Date	Council Representative	User Group Representation - 2012	Membership 2012 Annual General Meetings	Fees & Charges 2012 AGM
Friends of Yea Railway Committee of Management	12/11/2012	Cr John Kennedy	Community Representative Community Representative Community Representative Community Representative Community Representative Yea Country Market Representative Rotary Representative	Jo Miller (President) John Clark (Secretary) Gary Cocks (Treasurer) Miranda Gill Nola Yorston Cheryl Clark Elaine White	Yea Country Market Fees $50 per month for the Goods Shed plus $10 electricity. Kiosk Rental - Pit Stop Café $100 per month with the market cycle. Goods Shed $50 per hire
Kinglake Memorial Reserve Committee of Management	17/09/2012	Cr Andrew Derwent	Kinglake Football/Netball Club Kinglake Cricket Club Community Representative Kinglake Ranges Tennis Club 1st Kinglake Scouts Group Community Representative Community Representative	Aaron Westworth (President) Jason Gaffe (Secretary) Ken Benson (Treasurer) Nicole Sekold Chris Cobern Ray Bartlam Vacant	Leases/Licence Agreements under negotiation December 2012
Mt. Pleasant Reserve Committee of Management	21/08/2012	Cr Margaret Rae	Field Naturalists Community Representative Community Representative Trust for Nature DSE Landcare Parks Vic Proxy-Field Naturalists Proxy - Parks Vic	Joan Semmens (President) Brian Hender (Secretary/Treasurer) Bob Tate Shelagh Curmi Nigel Waterhouse Cathy Olive Julie Flack Lorranine Pyke Neil MacKinnon	Not Applicable

Table 1 - Community Recovery Plan Projects Transferred to Council from VBRRA			
No	**Project Name**	**Project Description**	**Comments**
1	Flowerdale Recreation Reserve Oval	Flowerdale Recreation Reserve Oval - Complete Oval reconstruction, irrigation	Minor finishing items across reserve projects
2	Flowerdale Community Garden	Construction of Community Garden	Completed
3	Flowerdale Cricket Nets	Conversion of Old Tennis Courts to Cricket Practice Nets	Completed
4	Flowerdale Youth Shed	Flowerdale Youth Space - Construction of an indoor multifunction space for youth activities	Youth Shed completed, Skate park component in construction phase
5	Glenburn Hall	Demolish and reconstruction of the Glenburn Hall providing upgraded facilities including additional meeting spaces, upgraded kitchen and car parking	Completed
6	Glenburn Schoolhouse	Glenburn - Upgrade of the Glenburn School House. Repairs to floors, roof and upgrade of internal fittings.	Completed
7	Kinglake Memorial Reserve Upgrade	Kinglake Memorial Recreation Reserve upgrade - Tennis Netball courts and pavilion, car park and road works, oval irrigation and surface repair, oval fence. Transfer of education department land to Council Management	Proposals to progress unfunded works that were de-scoped as part of the project. Oval surface work required to address drainage issues.
8	Strath Creek Hall	Strath Creek Community Hall extension and upgrade	Minor works being scoped and finalised with committee
9	Strath Creek Facilities Upgrade	Strath Creek - Pioneer Reserve Facilities Upgrade with Tennis Courts and Pavilion	Minor works being scoped and finalised with committee
10	Strath Creek Pioneer Reserve	Strath Creek - Pioneer Reserve - BBQ, Shelter & Toilets	Minor works being scoped and finalised with committee
11	Castella Central Park Castella	Toolangi and Castella Central Park - Horse holding pens, Shelter, toilet bbq and parking	Completed - some rework due to repeated theft of equipment.
12	Moore's Road Reserve	Flowerdale Moores Reserve Development - BBQ Shelter and BBQs, Toilet Block	Completed
13	Marysville Heart	Marysville Heart - new architecturally designed public space in the centre of the town. Included car parking, log train, historic police station and public toilets	Minor works remaining

14	Murchison Street Town Amenity Project	Marysville Main Street Beautification & Landscaping - Reinstatement of damage to landscaping and civil works in Murchison St and included the relocation and construction of Darwin Street and additional car parking.	Minor tidy up works remain
15	Gallipoli Park Stage 1 & 2	Marysville - Restoration of Gallipoli Park - Stage 1 Playspace, New Life Sculpture, Reflective Garden; Restorative Work to Pathways, Signage & Furniture. Incorporates the Marysville Skate Park	Wet weather has delayed Marysville Skate Park construction and landscaping component unable to commence until skate park completed.
16	Marysville Community Centre	Marysville Multipurpose Community Facility and Recreation Centre - Gallipoli Park Pavilion, Multifunction Sport Stadium, Function Rooms and Community Health Facilities. Rebuild; Pavilion, clubrooms, kitchen, grandstand and meeting hall.	Main building is completed, Finalisation of works associated with fit-out funds Construction of car park and sheet works to be completed shortly
17	Marysville Drainage	Marysville Drainage - The project expanded the piped drainage network to give point of discharge connections to service the rebuilding process and protect the business are from high intensity rainfall events. In addition to the major outfall works, property drains in easements in Allison crescent were constructed.	Completed. Some investigation into works in McLean & Sedgwick Streets was carried out and this will be considered in the 10 year Capital Work program.
18	Toolangi/Castella Hall Upgrade	Upgrade of toilets to ensure that they are Disability compliance, painting of the internal walls and ceilings, the floor sanded and sealed and line marked from sporting events. a generator was installed as power outages in the area remain a continual issue and landscaping.	Completed
19	Kinglake Ranges Neighbourhood House Redevelopment	Kinglake Ranges Neighbourhood House Redevelopment included two additional classrooms, toilet facilities, kitchen upgrade outdoor area and a storage area.	Completed

Table 2 - Other Projects delivered by Council			
No	**Project Name**	**Project Description**	**Comments**
1	Marysville Retirement Units 5, 7 & 8	Reconstruction of 1 two bedroom unit and 2 one bedroom units owned by Council destroyed by the fires at the Marysville (Retirement) Village.	Completed
2	CJ Dennis Centennial Trail, Tall Trees Trail, Toolangi All-Purpose Track	CJ Dennis Centennial Trail - Toolangi Walking Trail. The development of an off-road, all-purpose track that extends from the Silvia Creek road to Old Dixon's road Toolangi and includes signage. To redevelop and extend a safe, multi-purpose track for community use.	Completed, except for minor furniture
3	Arthur Miller Reserve - Glenburn Playground	Development of a playground at Glenburn. Included the acquisition of land, construction of Playground, shelter bbq's car park and landscaping.	Completed.
4	Buxton Recreation Reserve Upgrade	Landscaping, pathways, toilet upgrade and disabled toilet, shelter and additional BBQ facilities.	Completed - Minor finalisation of signage and landscaping remaining
5	Toolangi Castella Community House Upgrade - Toocom Cottage	Construction of new classroom, upgraded office, kitchen, disabled toilet access ramp and car parking.	Completed
6	Triangle Community Shared Trails - Three Towns Trail	Construction of three loop trails within the triangle region at Buxton, Narbethong and Taggerty. Trail 1 – Buxton: Circuit that builds on existing paths that will loop around the township and cross the Stevenson River. Trail 2 – Narbethong: The trail incorporates a nature tail of up on public land from the Narbethong reserve and adjacent to the Narbethong Hall. Trail 3 – Taggerty: The proposed trail project is currently being review to determine if a viable project exists for Taggerty.	Narbethong and Buxton Trails Completed. Council working with the Taggerty community to review alternative project.
7	Narbethong Reserve development	Development of a picnic area including barbecue facilities, shelter, toilet facilities, playground, car parking	Substantially completed with formal car park construction and landscaping and associated works remaining.
8	Flowerdale Shared Pathway	Broadford-Flowerdale Walking Path 3.6 km and Broadford Flowerdale Walking Path Bridge	Completed

9	Glenburn Road Walking Path	Walking Path - Extons Rd to Bollygum Park	Completed
10	Kinglake Community Health Centre	Construction of Permanent GP Practice for Kinglake	Completed
11	Kinglake Art History Walk	The project proposes to develop a themed 'Art History Walk' along the central spine of the Kinglake Ranges from Kinglake West to Kinglake with spur lines running from Kinglake to Kinglake East and from Kinglake towards Castella. The Art History Walk will follow the route of the existing pedestrian walking paths located within the road reserve. Utilising locally designed and crafted art work/sculptures, interpretative signage and highlight sites of cultural, social, historic and environmental significance to the Kinglake Ranges.	Funding was confirmed on October 2012 and project require considerable design work and has yet to commence.
12	Buxton Nature Trail	Walking/Nature trail making the Reserve accessible. Incorporates paths boardwalks and interpretive signage.	Completed. Stage 2 of project associated with Primary School land is deferred subject asset ownership and land tenure issues.
13	Buxton Streetscape	The project will entail tree planting, improvements to landscaping and the upgrading of paths and parking in the township of Buxton	A contractor has been appointed to landscape the triangle intersections. These works are expected to be completed by mid December. Investigations are being made into options to increase parking at the Buxton Hall.