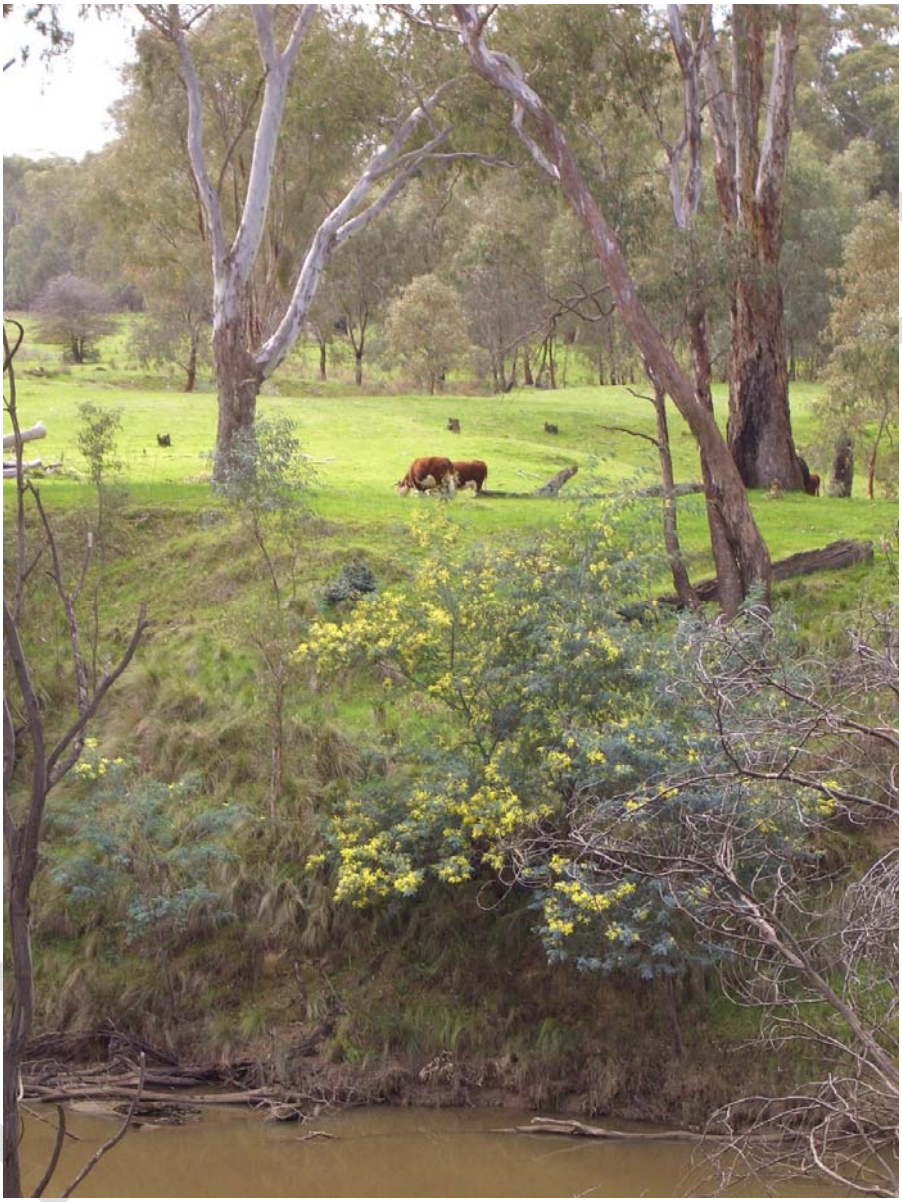
Greater Shepparton City Council
Draft Municipal Fire Management Plan



Municipal Fire Management Planning Committee, 2012

GREATER SHEPPARTON

State Government Victoria

M13/12637

Preface

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

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

While the management of all types of fires is important, this plan has focused 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 for fire. Furthermore it is important to note that this plan recognizes, but does not duplicate, the extensive work already being undertaken in fire management across the municipality. This document is essentially a plan for improving integration of this existing work and developing improved methods for working together.

I join with the members of the Greater Shepparton City Council 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.

Greg McKenzie
Chair
Greater Shepparton City Council Municipal Fire Management Planning Committee

Version Control Table

Version number	Date of issue	Author(s)	Brief description of change
Version 1.0	4/5/12	C. Hajek and C. Price	Draft MFMP for Comment
Version 2.0	31/5	C. Price	Edits included from MFMPC M4 on 18/5/12
Version 3.0	7/6/12	C. Price	Edits included from MFMPC M4.2 on 5/6/12
Version 4.0	26/9/12	G. McKenzie	Edits included from CFA & DPI feedback – Email C. Hajek
Version 5.0	04/03/13	G. McKenzie & C. Hajek	Edits included from CFA & DPI feedback – Email C. Hajek

Authorisation

This integrated MFMP was adopted as the first iteration of the Greater Shepparton City Council MFMP. This Plan was endorsed through a formal motion by the Greater Shepparton City Council MFMPC at their meeting on ……. 2012, for which the Chair of the committee will sign for and on behalf of all members of the Greater Shepparton City Council MFMPC.

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

Greg McKenzie

Manager, Sustainability and Environment
Municipal Fire Prevention Officer
Greater Shepparton City Council
Chairperson
Greater Shepparton City Council Municipal Fire Management Planning Committee

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

Peter Brereton

Operations Officer
Country Fire Authority

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

Alan Dobson

Land and Fire Regional Manager
North East Region
DSE

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

Steve Allen

Operations Manager District 22
CFA

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

Craig Stubbings

District Chief Ranger
River Red Gum District
Parks Victoria

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

Gavin Cator

Chief Executive Officer
Greater Shepparton City Council

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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, considers the unique environmental circumstances in Greater Shepparton and builds on existing information.

Figure 1: Fire Management Planning

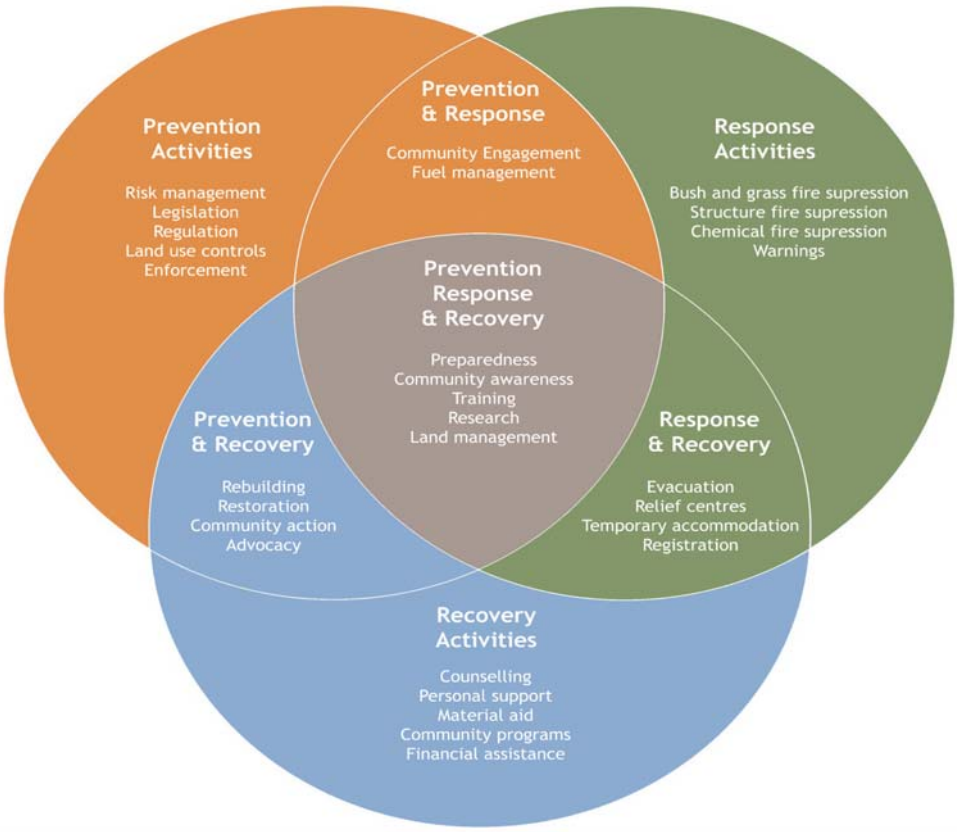
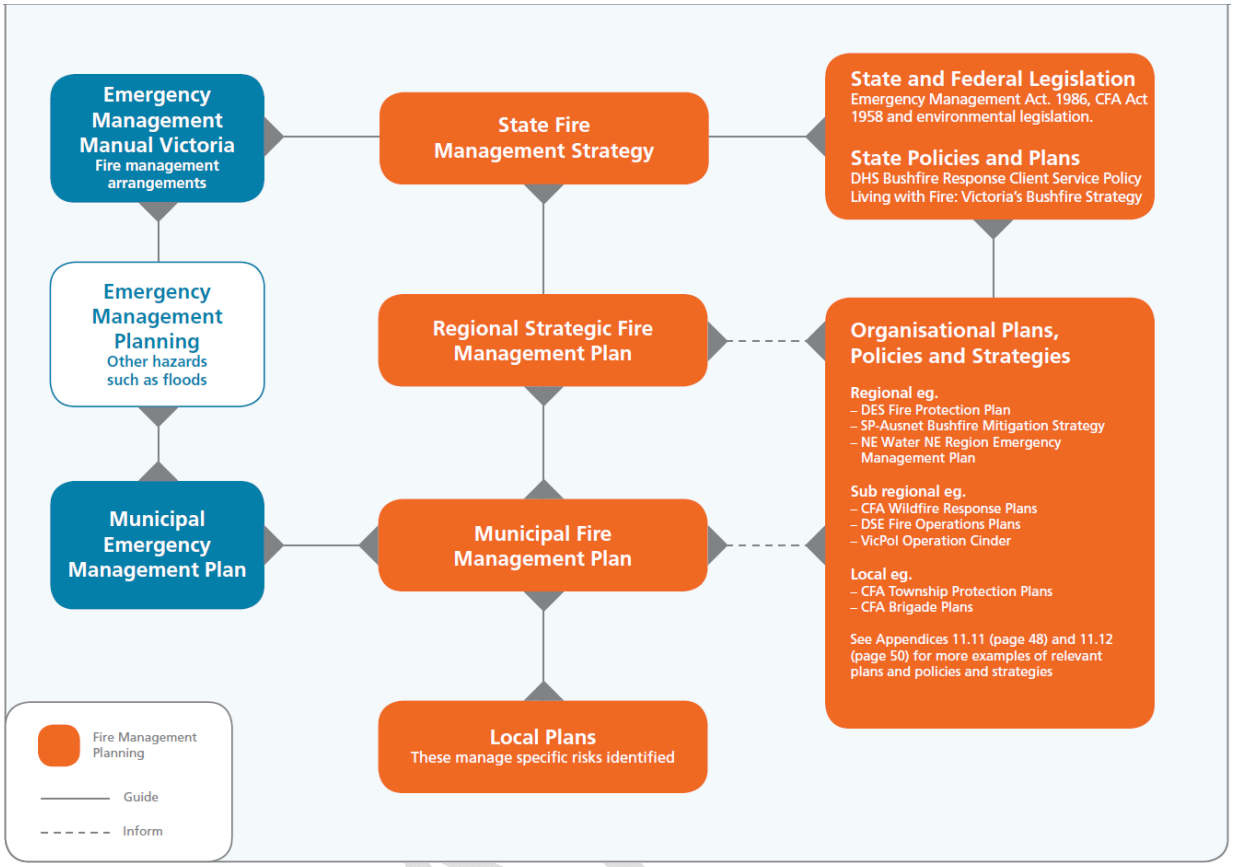


Figure 2: Victorian Management Plans and Policies



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 Municipal Fire Management Committees 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.

City of Greater Shepparton MFMPC membership consists of:

- Greater Shepparton City Council
- CFA
- DSE
- Parks Victoria
- Victoria Police

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

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

1.2 Period and Purpose

Organisation and agencies involved in fire management already have a range of activities, plans, policies and procedures that are directly involved with, or that impact on fire management. This MFMP builds on this existing work, so as to chart and coordinate the implementation of measures in use across the municipality designed to minimise the occurrence and mitigate the effects of fire. 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. This MFMP concentrates on bushfires; however it is expected that future versions of the plan will 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.

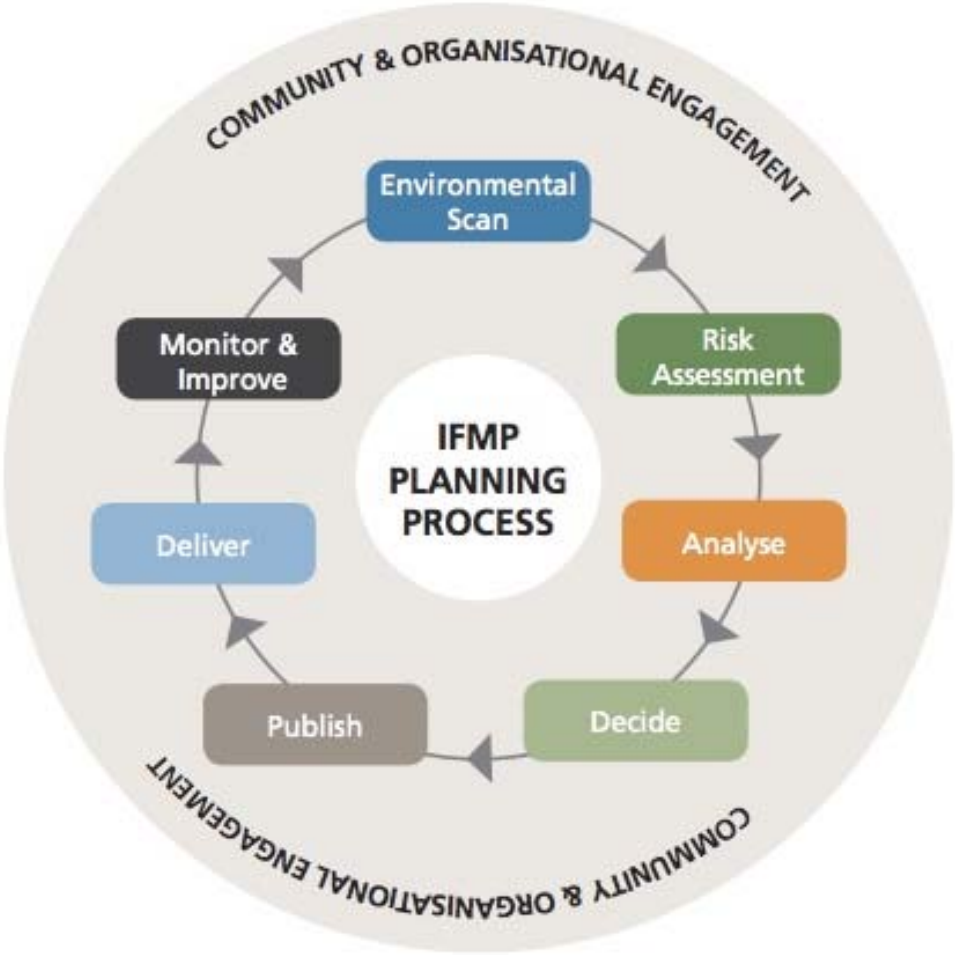
Stage 4: Decide – select the most appropriate risk treatment options to achieve the fire management objectives.

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 Greater Shepparton City Council MFMPC as a subcommittee of the Greater Shepparton City Council 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 (page 11) 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 Greater Shepparton City Council 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 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.

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.

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

2.2 Community Engagement

During the development phase of the MFMP Greater Shepparton City Council 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 Greater Shepparton City Council 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.

3.1 Municipal Profile

3.1.1 Location and Tenure

The Greater Shepparton region located at the confluence of the Goulburn and Broken Rivers is northern part of the state, approximately two hours north of Melbourne. It has an area of 2,420 square kilometres and has an estimated population of 63,335. Shepparton combined with Mooroopna is the fourth largest

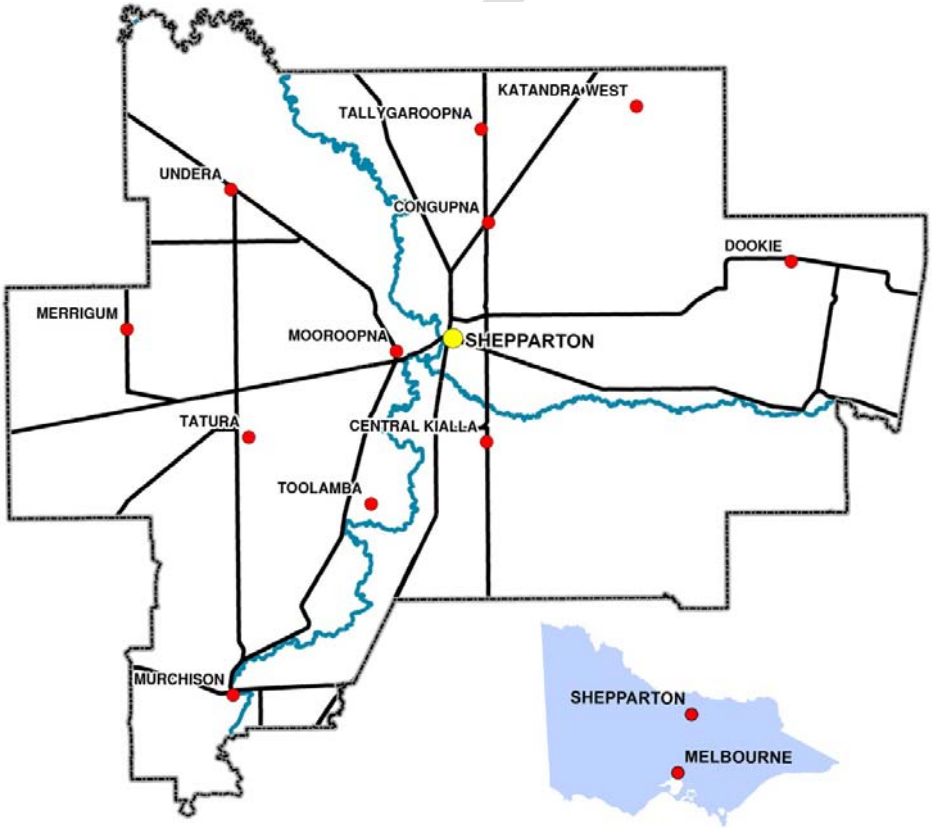
regional city in the State after Geelong, Ballarat and Bendigo. As a region, the City of Greater Shepparton is also one of the fastest growing in Victoria.

The City of Greater Shepparton is the major manufacturing, commercial and transport capital of the Goulburn Valley. It is one of Australia's major horticultural and food production areas and is responsible for approximately 25% of Victoria's agricultural production.

The Greater Shepparton City Council was formed in 1994 from the merger of the City of Shepparton, Shire of Shepparton and parts of the Shires of Rodney, Euroa, Goulburn, Tungamah, Violet Town and Waranga. Major waterways including the Broken and Goulburn rivers flow through the area. It is also home to the Waranga Basin.

The majority of Shepparton lies in the 'Victorian Riverina' bioregion and forms part of the Goulburn-Broken Catchment. Across the catchment, 97% of the Victorian Riverina area has been cleared of its native vegetation. Land in the Shepparton region is approximately 85% privately owned with the remaining public land generally being managed by the Department of Sustainability and Environment, Goulburn Broken Catchment Management Authority and the Greater Shepparton City Council.

Figure 8: City of Greater Shepparton



3.1.2 Population and Demographics

Greater Shepparton's population of over 60,000 people is nearly evenly split between the major urban centres of Shepparton and Mooroopna (53%) and the surrounding rural areas including the smaller townships of Tatura, Murchison, Dookie, Merrigum, Congupna, Toolamba, Undera, Katandra and Tallygaroopna (47%) Since 2007, the unemployment rate in the greater City of Shepparton has risen from 4.7% to 5.6%. Agriculture, Forestry and Fishing are the major employers in the region.

The Greater Shepparton City Council is more culturally diverse than many of its' neighbouring Shires. Approximately 11 % of its residents were born overseas and 3.5% of its population are Indigenous Australians. Shepparton city has the second largest Indigenous community in Victoria after Melbourne and is four times larger than any other rural city in Victoria.

Greater Shepparton's population expanded rapidly after World War Two, largely as a result of immigration. As a result there are large groups of people from a diverse number of countries in the municipality including Italy, Turkey, Greece, Albania, Netherlands, United Kingdom, Germany, India, New Zealand, Philippines, Iraq and more recently the Democratic Republic of Congo and Sudan. 10.4% of the population speak a language other than English at home.

Shepparton City is growing, as is the rest of the municipality. It is estimated that by 2031, the population of the Greater Shepparton City Council will have increased to 80,681 which is an increase of 35.8%, or 21,256 persons, over the 2006 population. This equates to an annual population increase of 1.23%.

In the 2006 census, the most populous age group in municipality was the 10-14 year age group with 4,623 persons. Analysis of the 2006 census reveals that17.6% of the Greater Shepparton population is over 60 compared with an average of 19.3% for the rest of the Hume Region.

The Greater Shepparton City Council had the second lowest score in the Hume Region 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. Benalla Rural City is the only municipality with a lower score in the Hume Region.

3.1.3 Natural Environment

The City of Greater Shepparton's natural environment is centred on the floodplains and river systems that also support the agricultural base of the region. Areas of remnant vegetation are generally confined to river corridors and roadside areas with some areas of native vegetation on private land. The protection and enhancement of these wildlife corridors is important to provide habitat links for native flora and fauna to large areas of native remnant vegetation and areas of greater biological diversity.

The municipality includes areas of the Lower Goulburn National Park and the Coomboona State Forest. The Broken and Goulburn River reserves (including these parks) contain large stands of River Red Gum *(Eucalyptus camaldulensis)* and form important wildlife corridors. Understorey plants along these river corridors include Golden Wattle *(Acacia acinacia)*, Dwarf Native Cherry *(Exocarpus stricta)* and Silver Wattle *(Acacia dealbata)*. Reedy Swamp, located in the Lower Goulburn National Park, adjacent to Shepparton is home to a large number of waterbirds (both migratory and local).

Major threats to the environment in the Shepparton region include a decline in water quality, flooding, pest plants and animals, salinity, soil degradation and the degradation of ecosystem process resulting in a loss of biodiversity. These elements not only threaten the region's natural assets but also threaten the economy and social assets of the City of Greater Shepparton.

The Goulburn River, running essentially south-north, forms a major physical barrier through the centre of the Municipality. This river may form a natural control line, but also severely limits access to either side. The Municipality is also traversed by a large number of smaller creeks and tributaries. These creeks in many instances are difficult to cross as the creek gullies are deeply embedded in the surrounding land and access from one side to the other is often difficult.

3.1.4 Land use, Economy and Employment

The management of the floodplains in the City of Greater Shepparton is one of the main land use and development issues for the Municipality. The municipality is characterised by flat topography and is located on a floodplain at the confluence of the Broken and Goulburn Rivers. Flooding in the City of Greater Shepparton is a result of the interaction of the Seven Creeks, Broken River and Goulburn River

Known as the 'Food bowl of Victoria' and responsible for producing approximately 25% of Victoria's agricultural production, the economy of the Shepparton region is largely based on agriculture which utilises over 190,000 hectares of Municipality land and grosses $486 million annually. There are large orchards in the municipality including stone fruits, pear and apple production covering 8000 hectares of land. High intensity dairying including 112,000 dairy cows is a major industry for the municipality. Animal production is also a large industry consisting of over 150,000 sheep and lambs, close to 40,000 beef cattle and over 50,000 pigs. Dairying and fruit production generally occur within the irrigated areas of the municipality with mixed farming predominating outside these areas including wool, cattle and cropping. Grain production is popular in the non-irrigated areas and utilizes approximately 20,000 hectares of Greater Shepparton land.

Strong regional growth in the City of Greater Shepparton is based on a strong industry and Shepparton is one of the five fastest growing regional centres in Australia. Aside from agriculture, the Shepparton region's economy is based on food processing, retailing and road transport. Large volumes of foodstuffs are produced and processed in the region which generates a large number of freight movements throughout the municipality. This road transport industry is a substantial contributor to the economy of the region as is the support industry of truck servicing and sales.

Greater Shepparton, a regional hub for the region, provides a range of goods and services to over 160,000 people spread over this area of Victoria. This allows the city to support a strong and diverse retail sector. Retail trade is centred in the city of Shepparton and Mooroopna with smaller retail areas in the other larger towns scattered around the municipality such as Tatura.

Shepparton is also serviced by high quality medical services and offers a number of tertiary level training institutions including Latrobe University and the Goulburn-Ovens TAFE. Tourism is also a key supporting industry in the region and the city has a strong history of attracting major tourism events to the region.

Shepparton also has a large number of manual workers employed in the fruit and food processing industries. Much of this work is seasonal and many of the workers speak a language other than English.

The City of Greater Shepparton is currently experiencing rapid population growth. As part of this growth, many people are moving into lands traditionally managed by farming communities and a landscape-wide shift in land management practices is occurring. Many farms have been sold divided into 'lifestyle' blocks, many of which are being re-vegetated or alternatively being developed as hobby farms which increases the interface between farming and residential areas. Some areas that were irrigated farms also no longer utilize channel infrastructure or utilise channel water for crops. This places financial pressures on those remaining irrigators to maintain the same infrastructure with fewer users. Those areas that were previously irrigated have had an increase in the area of 'dry land' which has also increased the length of the fire season. For example, grain crops only pose a fire risk when they are almost ready to harvest whereas grass that has dried out over summer may remain dry and therefore a fire risk until extended rains occur. This landscape change also increases the potential for fires started on farms to directly impact residents. Conversely, due to increased number of residents, the potential for fire ignitions has also increased which may cause fires to impact farms.

The municipality is dissected by two major highways that meed in Shepparton; the Goulburn Valley Highway running north-south and the Midland Highway running east-west. A number of other major roads traverse the municipality and there is generally good access for emergency vehicles. However there are also a high number of watercourses and major rivers spread throughout the municipality. Although these water bodies provide access to reliable water to fight fires, they may also inhibit emergency vehicle access as crossing them is restricted to bridges and fords.

Rail corridors in the municipality include the lines to Shepparton, Strathmerton-Cobram, Dookie and Echuca.

3.1.5 Traditional Owners

There is one Registered Aboriginal Party (RAP) that encompasses the entire geographic area of Shepparton: the Yorta Yorta Nation Aboriginal Corporation (YYNAC). 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, make decisions on Cultural heritage Agreements and offer advice or applications for Protection Declarations.

The YYANC RAP covers the northern area of Benalla Rural City, the whole of the Greater City of Shepparton and Moira Shire and extends to the north into NSW. It also continues west into the Shire of Campaspe and east into the Rural City of Wangaratta . Traditionally Yorta Yorta's activities were concentrated around the major rivers, wetlands and forests in the Central Murray-Goulburn region. Their lifestyle was based on hunting, fishing and collecting food from a variety of sources.

Areas of potential sensitivity for Indigenous cultural heritage include:

- Riparian corridors of the Goulburn and Murray Rivers, and numerous other tributaries and creeks;
- Sand dunes adjacent to flood plains;
- Areas of native vegetation;
- Raised edges of billabongs and creeks; and
- Raised ridges on flat land adjacent to the flood plain.

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

The City of Greater Shepparton is characterised by a temperate climate with cool winters. Average rainfall is approximately 450mm through most of the municipality although generally, average rainfalls are higher in the east (e.g. Dookie with an average of 553.5mm). Summer temperatures average approximately 30-31 C° during the day throughout most of the municipality and nigh time summer temperatures are between 13-14.5 C°. Winter maximums average around 14 C° and minimums around 3.5 C°. Flooding is a natural phenomenon throughout the Shepparton region.

From 2000-2009 the Shepparton region and many other parts of Victoria experienced a prolonged drought. More recently large rain events have occurred in 2010, 2011 and particularly in 2012 causing extensive flooding in low lying areas. This variance in annual weather patterns is becoming increasingly erratic and harder to predict.

The future climate in the greater Goulburn-Broken region is expected to become hotter and drier than it is today. It is also expected that there will be a larger proportion of hotter days, fewer frosts and a greater incidence of drought. Higher intensity, but lower predictability, of rain events is also likely to occur with

less rain available for irrigation. These climactic changes will influence and possibly increase the likelihood of fire in the municipality.

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

3.1.7 Fire History

Although there is a fire season every year, there have been only a small number of major outbreaks in the last 10 years. There was a large commitment of personnel and resources made by the fire services, from the Municipality to the 2006/07 North East fires. The most notable structure fire within the Municipality was the Anspac Cool-store fire in August 1997 that caused damage in the order of $11,000,000.

There are 22 Fire Brigades that have all or part of their area within the Greater Shepparton City Council area. They are as follows:

Arcadia, Caniambo, Cooma, Cosgrove & Pine Lodge, Currawa, Dookie, Earlston, Katandra, Karramous, Kialla & District, Merrigum, Moorilim, Mooroopna, North West Mooroopna, Murchison, Stewarton, Shepparton, Shepparton East, Tallygaroopna, Tatura, Toolamba, and Undera.

All CFA Brigades are well equipped, with a number of the brigades having four wheel drive vehicles. DSE, with the support of Parks Victoria, also maintain an active fire fighting role, particularly in relation to bush fire, and have well-resourced work centres spread throughout the Municipality.

To describe the effect of fire in the municipality it is necessary to understand the fire history of the municipality. 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 Total Fire Ban (TFB) days.

The following figures provide a historical picture of the fire situation in the Municipality. Figure 9 gives us the average breakdown of the Municipalities fire season across the Moderate to Code Red categories of the FDR range, where 1 = forest and 2 = grassland. Whereas figure 10 describes the annual variation between each FDR category over different fire seasons for the last seven years. Finally figure 10 is a record of the number of TFBs declared within the Municipality (Statewide & 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 9: City of Greater Shepparton Fire Danger Rating History

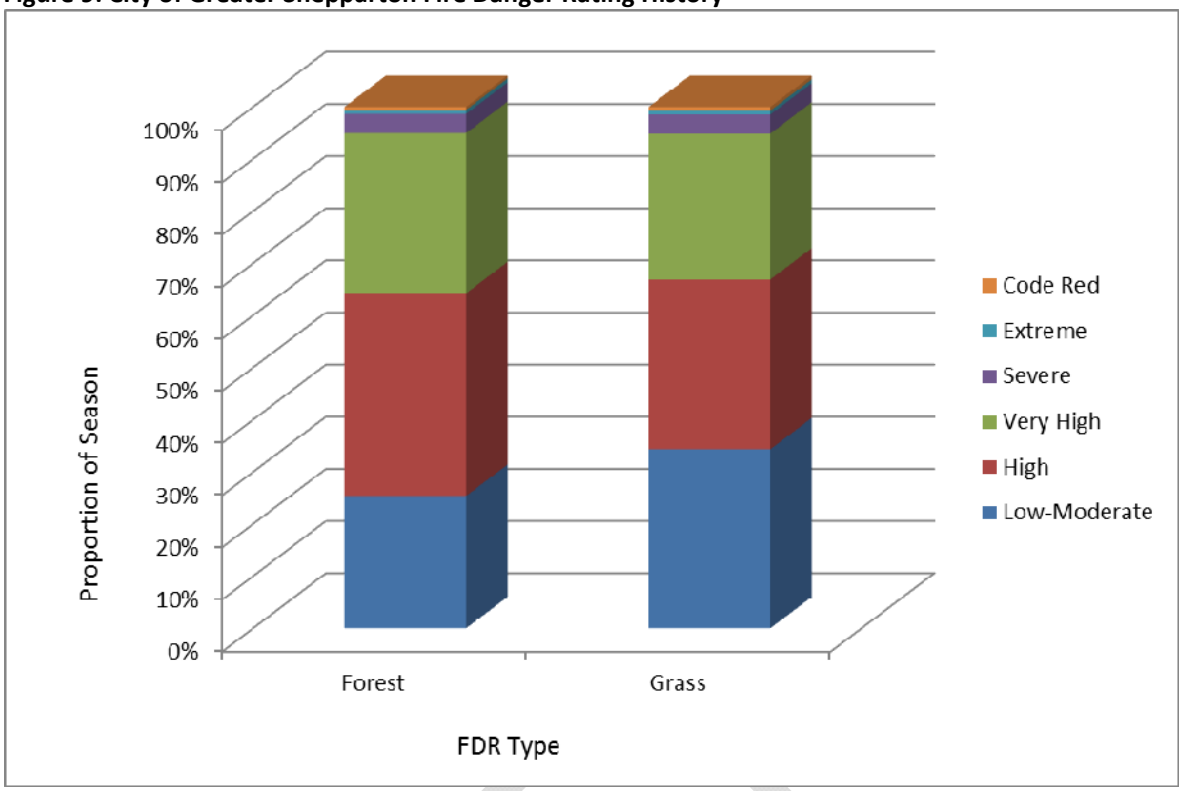


Figure 10: Historical Total Fire Day Declarations for the City of Greater Shepparton

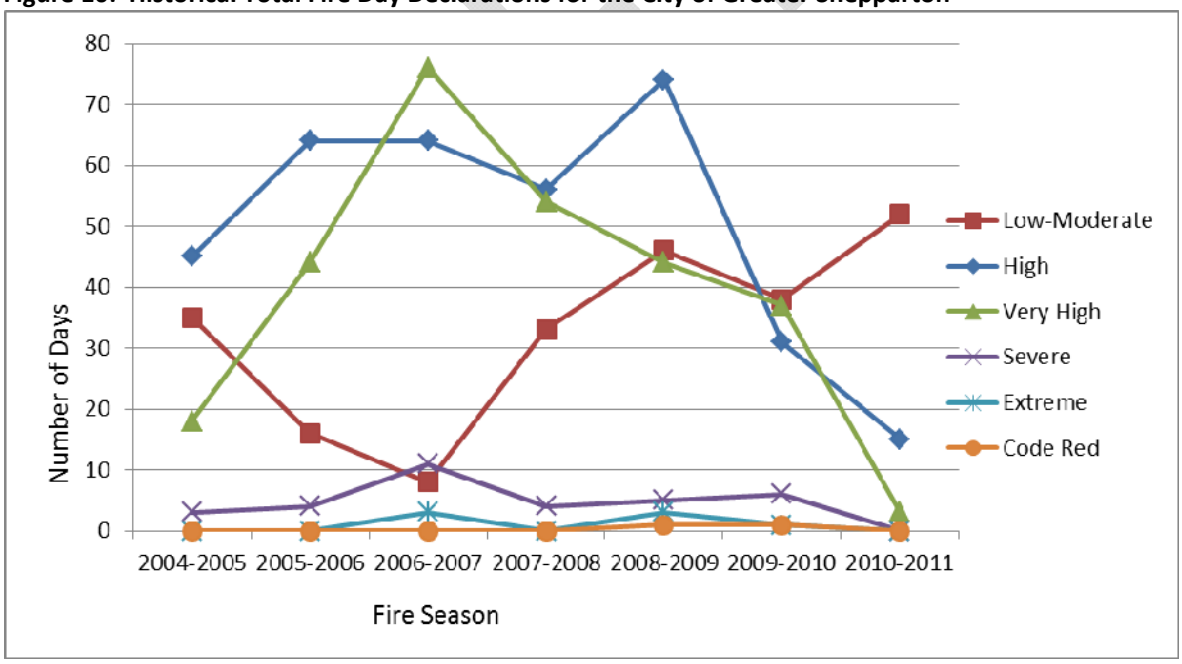
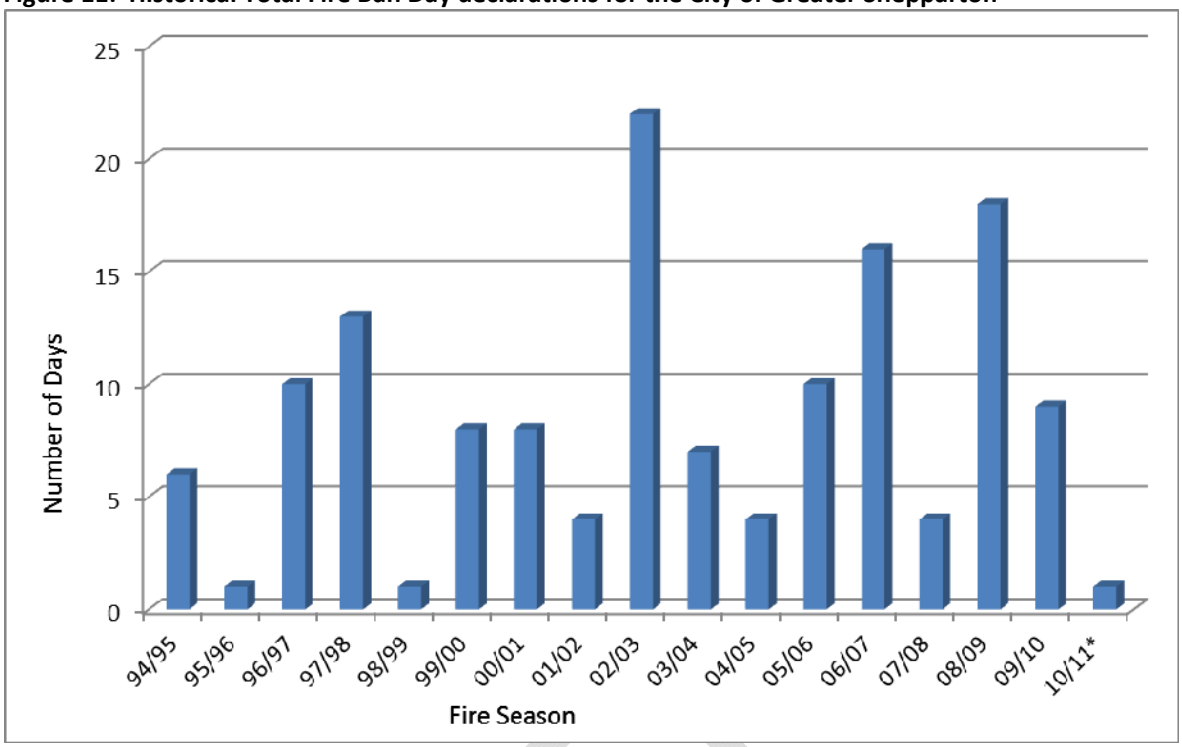


Figure 11: Historical Total Fire Ban Day declarations for the City of Greater Shepparton



3.2 Strategic Implications

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

The City of Greater Shepparton 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 vegetation and topography of the Municipality create a number of challenges for fire management. Along watercourses in the municipality, there are a number of large public parks and reserves containing remnant vegetation and associated fuel loads. These areas have can delay response times as locating and accessing fires with emergency equipment can be difficult.

3.2.1 Vegetation

The woodlands and grasslands of the City of Greater Shepparton present a number of fire safety challenges as do the major wetlands as they often dry out over summer. Much of the vegetation in the municipality is confined to river corridors and parks associated with the major rivers. Although fuel loads in these areas may be relatively low, they have the potential to easily burn most summers. Consequently fire management in and about these areas is an annual task.

Bushfire threat is not confined to forested environments and the threat of grass fires is a significant one throughout Greater Shepparton. 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 the City of Greater Shepparton. For instance the bushfire season and associated restrictions is generally longer that of other areas. 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 of north westerly winds accompanied by high day time temperatures and low relative humidity building up over several days to a storm event with a change to south westerly winds. This creates a situation whereby fire ignition from lighting becomes a likely possibility, with a propensity for the fire to run quickly in one direction before changing direction quickly, thus transforming the fires extensive flank into the new fire front.

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 fire danger days as well as longer fire seasons.

3.2.3 People

The City of Greater Shepparton has a large influx of people in the summer months, drawn to the area by the combination of water recreation and camping in remnant bushlands along the major rivers in the municipality.

Greater Shepparton has experienced a number of fires over the years. Its' combination of rural lifestyle living, 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.

The municipality has people with different perspectives and different needs in regard to fire and fire safety. Understanding these needs is central to delivering effective community safety initiatives. This is particularly important for people new to the area or those that speak a language other than English. Shepparton has a number of overseas workers who are seasonally employed in the fruit and food processing industries that speak a language other than English. Many of these people do not have an understanding of the potential impact of bushfires and may require information to be translated.

The impact of a bushfire increases if the fire occurs in areas where people live, work and visit, so consequently, settlement patterns are important when understanding bushfire risk. As stated in section 3.1.4 above, landscape-wide changes are taking place in the Greater Shepparton area where farms are being surrounded by residential developments with a corresponding increase in the density of people. These patterns of human settlement have increased the amount of urban rural interface that requires intensive fire management. This situation places residential owners in these areas at a greater risk of being impacted by fires beginning on farms. Similarly, due to higher populations there is also greater potential for an increase in fire ignitions from the residential areas which also has the potential of fires impacting farmers and crops. Also in those areas that have previously been used as irrigated farms and are now utilised as lifestyle blocks, the potential to burn has also increased due to a reduction in water use resulting in the land being consistently dry.

Tourism also has considerable impact on human movement during the fire danger period, interacting with fire management at a several points. The same landscape features that may lead to increased fire danger,

can also be underpinning elements of what makes the site attractive for tourism. Furthermore visitor numbers tend to increase as the fire season advances creating a situation of increasing potential impact as the fire risk rises.

4 Municipal Fire Management Objective

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 Greater Shepparton City Council MFMPC is;

> *The community of Greater Shepparton working together to plan and prepare for, respond to and recover from fire - to reduce the risk and consequence of fire to the community, environment and the economy*.

4.2 Strategic Direction

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

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

4.3 Alignment of Regional & Municipal Objective

The Greater Shepparton City Council 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.

Furthermore the formation of the MFMPC and the development of a MFMP using the designated IFMP guide have strongly supported

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.

several of the RSFMP's key objectives. Evidence of this is described in the following table.

Figure 12: Alignment of MFMP & RSFMP objectives

RSFMP element	RSFMP objective	MFMP contribution
Planning together	Develop state, regional, municipal and local fire management plans and planning with a clear purpose and a consistent assessment of risk.	The MFMP provides the third tier in the IFMP process and utilises the same risk base approach as used with State and Regional plans
Collaborative implementation	Develop and implement fire management programs and activities in a collaborative manner.	The MFMPC consists of multiagency representation and has incorporated community engagement strongly into the development of the MFMP. It therefore exemplifies collaborative implementation.
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.

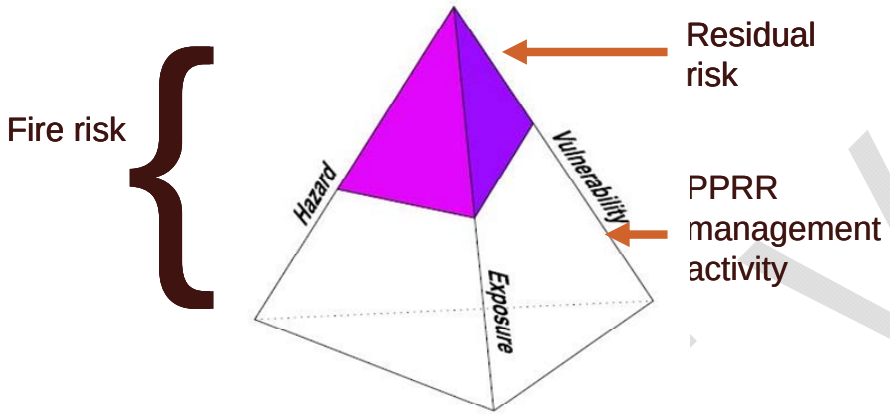
5.1 Risk Identification Process

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 13: 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 Figure 14 below.

5.2 Risk Assessment Process

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

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

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

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

The likelihood of each an 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.

Once assessed, risks were also given categories using the following table (figure 14). 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 15, page 20) and the Risk Management Strategy (figure 16, page24).

Figure 14: Risk Categories Table

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

ID #	RISK DESCRIPTION (Defined)	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	COMMENT	LIKELIHOOD	RISK RATING
1	Risk to community being impacted by fire in Murchison East (Goulburn River) on high and above FDR days	Social	People & Social Setting	Murchison East is open to grasslands to north and east, contains a river corridor and fire direction has historically been driven by hot northerly and north-westerly winds. A south westerly change may also occur. Change in farming practices from irrigated land to dry land farming	Loss of life, residences, assets, cost and time or recovery, economic loss from closure of major roads and rail, communications	Access / egress issues, Flow through traffic from Melbourne to Goulburn Valley (Risk to and from heavy transport), Very poor reticulated water, Limited access to river water, Main rail link to North - Risk to and from railways, Wheat silos / infrastructure, 2 caravan parks	Unlikely	Low
2	Risk to Radio Australia Broadcasting Towers from fire, north of Shepparton, on high and above FDR days	Social	People & Social Setting	Surrounded by grassland (farming), and native grasslands, tower can 'earth' starting fire	Loss of assets, cost and time or recovery, communications loss	Radio national for Asia, Grass fuel loads around, Educational complexes within footprint, residences in proximity	Possible	Low
3	Risk to Dookie community and township (people, residences and infrastructure) from fire on high and above FDR days	Social	People & Social Setting	human factors, mechanical failure, equipment failure, natural (lightning)	Loss of life, residences, infrastructure/assets, time and cost of recovery	Vulnerable people (+65, low income, old infrastructure etc), Significant infrastructure, Fire risk from crops / grass	Unlikely	Low
4	Risk to residential and commercial areas and assets on the urban/forest interface throughout the City of Greater Shepparton on high and above FDR days	Social	People & Social Setting	human factors, mechanical failure, equipment failure, natural (lightning)	Loss of life, residences, infrastructure/assets, time and cost of recovery	Interface public land / private land, Risk to and from commercial / industrial structures and areas (Cool stores etc)	Possible	Low
5	Risk of fire impacting upon land which has changed farming methods from irrigation (lower risk) to dry land creating large areas of fire prone country with high fuel loads on high and above FDR days	Social	People & Social Setting	human factors, mechanical failure, equipment failure, natural (lightning)	Loss of life, infrastructure/assets, time and cost of recovery	This has the potential to impact large areas of the Greater Shepparton area including people, residences, infrastructure and employment, Lack of water, Higher fuel loads	Possible	Low
6	Risk to people, infrastructure and assets in riparian and adjoining areas from fire	Social	People & Social Setting	human factors, mechanical failure, equipment failure, natural (lightning)	Loss of life, residences, infrastructure/assets, time and cost of recovery	low to moderate fuel levels in riparian areas, lack of knowledge of fire, risk of fire being started in area by people, includes all level 1 VFRR risks in riparian zone	Possible	Low

Figure 15: Risk Assessment

ID #	RISK DESCRIPTION (Defined)	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	COMMENT	LIKELIHOOD	RISK RATING
7	Risk to community (residences, people and infrastructure) at Gemmils Swamp, Reedy Swamp, Frank Puller Childcare and Mooroopna from fire on high and above FDR days	Social	People & Social Setting	Surrounded by riparian bush	Loss of residences, assets, cost and time or recovery, loss to tourism	Access/egress issues, surrounded by wetlands	Possible	Low
8	Risk to Kialla Settlement (people, residences and infrastructure) from fire on high and above FDR days	Social	People & Social Setting	Within forest, lightning	Loss of life, residences, infrastructure/assets, time and cost of recovery	Surrounded by bush, Access / egress, No reticulated water/dams – River complicates access, Vulnerable / low socio / economic, Isolated residences, Railway line	Unlikely	Low
9	Risk to capacity of Goulburn Valley Water treatment plant to produce high water quality	Social	People & Social Setting	Fires affecting water quality by increasing turbidity of water	Higher cost to treat water, slower treatment of water, water restrictions	Majority of catchment is outside of the City of Greater Shepparton and local controls are of less importance	Possible	Low
10	Risk to and from campers / recreational users along rivers from fire during fire danger period	Social	People & Social Setting	human factors, mechanical failure, equipment failure, natural (lightning)	Loss of life	People camp in large numbers on weekends and during school holidays in river reserves (particularly along the Goulburn River)	Unlikely	Low
11	Risk to Kids Town Adventure Playground (children, other people, infrastructure, employment) from fire	Social	People & Social Setting	human factors, mechanical failure, equipment failure, natural (lightning)	Loss of life, infrastructure/assets, time and cost of recovery	Access / egress – east or west on causeway only, Lack of transport (buses taken away), Smoke impact, Public panic, Large number of kids	Possible	Low
12	Risk to people and communities on "life style" type blocks from fire on high and above FDR days	Social	People & Social Setting	human factors, mechanical failure, equipment failure, natural (lightning)	Loss of life, infrastructure/assets, time and cost of recovery	Lack of fire preparation/awareness, increasing population	Possible	Low
13	Risk to cultural heritage (both indigenous and non-indigenous) in City of Greater Shepparton from fire on high and above FDR days	Social	Cultural, Heritage	human factors, mechanical failure, equipment failure, natural (lightning)	Loss of assets, loss of scar trees, secondary impacts on burial sites and stone scatters	Information regarding Indigenous heritage sites may have limited access, knowledge of location of Indigenous sites may be limited	Possible	Moderate

Figure 15: Risk Assessment

ID #	RISK DESCRIPTION (Defined)	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	COMMENT	LIKELIHOOD	RISK RATING
14	Risk to Murchison East Bridge (contains telecommunications and water infrastructure) from fire on high and above FDR days	Economic	Infrastructure	human factors, mechanical failure, equipment failure, natural (lightning)	Loss of assets, cost and time or recovery, economic loss from closure of major road, communications	Water mains on bridge - no ring main – only 1 feed	Rare	Low
15	Risk to telecommunications and communications at Mt Major Complex from fire on high and above FDR days	Economic	Infrastructure	On top of hill, surrounded by grasslands, lightning	Loss of assets, cost and time or recovery, communications loss	All TV, ABC Radio, Phones, CFA, Victoria Police, Ambulance, Bureau of Meteorology, On top of grassy hill, On top of grassy hill, Access / egress and water	Rare	Low
16	Risk of fire impacting communications / telecommunications on high and above FDR days	Economic	Infrastructure	Direct fire impact on poles/wires/structures, falling debris or vehicles accidents.	Loss of assets, cost and time or recovery, communications loss		Unlikely	Low
17	Risk to power infrastructure Including sub-stations and High KV power lines from fire on high and above FDR days	Economic	Infrastructure	Direct fire impact on poles/wires/structures, falling debris or vehicles accidents.	Disruption to power delivery, loss of assets, time of recovery	Two major high KVA lines	Unlikely	Low
18	Risk to Rumbalara Community Centre (people and infrastructure) from fire on high and above FDR days	Economic	Infrastructure	human factors, mechanical failure, equipment failure, natural (lightning)	Loss of life, residences, infrastructure/assets, time and cost of recovery	Backs onto bush	Unlikely	Low
19	Risk to heavy vehicle routes, road and rail infrastructure in Greater Shepparton from fire on high and above FDR days	Economic	Infrastructure	human factors, mechanical failure, equipment failure, natural (lightning)	Economic Loss, cost and time of recovery	Smoke impact from fire, Limited access across river	Almost Certain	Moderate
20	Risk to riparian environment and threatened species throughout Greater Shepparton from fire on extreme and code red days	Environment	Biodiversity	human factors, camp fires escaping, natural (lightning)	Loss of habitat, loss of threatened species	Eg: Grey Crowned Babbler (endangered), mitigation works may also impact upon threatened species	Unlikely	Low

Figure 15: Risk Assessment

ID #	RISK DESCRIPTION (Defined)	RISK GROUP	RISK CATEGORY	CAUSE	IMPACT	COMMENT	LIKELIHOOD	RISK RATING
21	Risk to Flood warning infrastructure throughout Greater Shepparton from fire on high and above FDR days	Planning	Governance & Regulation	human factors, mechanical failure, equipment failure, natural (lightning)	Loss of assets, time and cost of recovery	Stations along rivers, Very susceptible to fire, Access / egress issues	Rare	Low

5.3 Risk Management Strategy

Having developed a register of risks for the City of Greater Shepparton, 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. It should be noted that these are proposed treatments only for the next three years, and that actual implementation in any given year may be influenced by a varity of factors such as availability of resources and seasonal conditions.

Figure 16: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application	
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted*	Period (Year 1, 2, 3)
Social	**People and Social Setting**	1	Schools Program	Fire Safe Kids, Fire Safe Youth, Mobile Education Bushfire Unit.	·	✓	·	·	·	CFA	N	All
		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	All
		3	Vulnerable Communities Fire Awareness	Community education & information for vulnerable groups about fire.	✓	✓	·	·	·	CFA	N	All
		4	Awareness	Fire awareness programs targeted at communities via shows/events/displays	·	✓	·	·	·	CFA	N	All
		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	All
		6	Public Information	Fire information through Fire Danger Rating signs, media etc to raise awareness of fire risk. Includes Fire Action Week.	✓	✓	·	·	·	CFA	N	All
		7	Community Information Guides	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	All

Figure 16: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application	
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted*	Period (Year 1, 2, 3)
Social	**People and Social Setting**	8	Community Fire Guard	A community development program designed to help reduce the loss of lives & homes in bushfires. It assists neighbouring residents to develop bushfire survival strategies that suit their level of risk, lifestyle, environment & values.	·	✓	·	·	·	CFA	Y	All
		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	All
		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	All
		11	Community Debriefs	Post fire debriefings for CFA members, community & stakeholders	·	·	·	✓	·	CFA	N	All
		12	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	All
		13	Communications	Maintenance of a communications network	·	✓	·	·	·	DSE	N	All

Figure 16: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application	
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted*	Period (Year 1, 2, 3)
Social	**People and Social Setting**	14	Information kits	"After the fires: Practical Advice" & "Recovery from emergencies"; information kits containing brochures & fact sheets for people affected by fire/emergency	·	·	·	✓	·	DHS	N	All
		15	Vulnerable persons toolkit	Identifies location, contact details & describes needs of vulnerable persons within a municipality	·	✓	·	·	·	DHS	N	All
		16	Tourism Fire Awareness Program	Community education and information for tourists about wildfire. Includes Tourism and Fire Awareness Program, Campfire Information and Caravan Park Education.	·	✓	·	·	·	LGA	N	All
	Infrastructure	17	Detection	Maintenance of a detection network. Includes fire lookout towers and detection flights	·	✓	·	·	·	DSE	N	All
		18	Incident Control Centres	Maintenance of a strategic network of incident control facilities to support response in emergency management incidents. Includes agreed level 3 ICCs to predetermined standards	·	✓	·	·	·	DSE	N	All
		19	Air support facilities	Maintenance of a strategic network of air support facilities. Includes airbases & helipads.	·	✓	·	·	·	DSE	Y	All
		20	Fire risk mgt system	GIS program identifying location & details of community facilities managed by DHS and allied agencies.	·	✓	·	·	·	DHS	N	All

Figure 16: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application	
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted*	Period (Year 1, 2, 3)
Economic	**Production**	21	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	All
		22	Native wildlife	Management of native wildlife welfare associated with an emergency incident.	·	·	·	✓	·	DSE	N	All
		23	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 (inc aquaculture), identify & refer personal and technical needs to appropriate businesses (within DPI) or agencies	·	·	·	✓	·	DPI	N	All
		24	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	All
	Infrastructure	25	Access Roads and Tracks	Establishment of constructed and maintained roads, bridges and tracks to allow safe passage for fire fighting vehicles. Includes Walking Track Maintenance.	·	✓	·	·	·	PV	Y	All
		26	Waterpoint Maintenance	Maintenance of a strategic network of water points	·	✓	·	·	·	DSE	Y	All

Figure 16: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application	
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted*	Period (Year 1, 2, 3)
Economic	**Infrastructure**	27	Fire Access Roads and Tracks	Maintenance of roads, bridges and tracks to specified standards.	·	✓	·	·	·	DSE	Y	All
		28	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	All
		29	Routine maintenance of transmission & powerlines	Vegetation management around powerlines and along easement, regular inspections, maintenance of access tracks.	✓	✓	·	·	·	SP Ausnet	N	All
		30	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	All
		31	Bushfire Mitigation	Removal of identified fire risks to lines & facilities, eg tree lopping	·	✓	·	·	·	Telstra	N	All
		32	Fire Plug and Hydrant Installation and Maintenance	Works carried out to ensure that the system will operate correctly when required to do so.	·	✓	·	·	·	LGA	Y	All
		33	Fire access Roads and Tracks	Establishment of constructed and maintained roads, bridges and tracks to allow safe passage for fire fighting vehicles.	·	✓	·	·	·	LGA	N	All
Economic	**Infrastructure**	34	Fuel Hazard Management	Reducing fuel loads to protect assets, fuel hazard mitigation eg slashing, burning, within townships, roadsides, reserves	✓	✓	·	·	·	LGA	N	All

Figure 16: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application	
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted*	Period (Year 1, 2, 3)
		35	Roadside Vegetation Management	Strategic Fire Fuse Breaks.	·	✓	·	·	·	LGA	Y	All
		36	Roadside Vegetation Management	Removal of fuel and vegetation management along roadsides. Includes Strategic Fire Fuse Breaks and routine Roadside Maintenance.	·	✓	·	·	·	Vic Roads	N	All
Environment	**Biodiversity**	37	Vegetation Management	Advice to landholders & linkages to CFA Brigades to manage vegetation & lower bushfire risk	✓	✓	·	·	·	CFA	Y	All
		38	Rehabilitation plan	Implement a works program to repair or replace fire affected infrastructure and minimise impacts upon natural values.	·	·	·	✓	·	DSE/PV	N	All
Planning	**Governance and Regulation**	39	Statutory & Legislative activities	Bushfire Prone Areas & Bushfire Management Overlay, declaration of TFBs, declared danger periods, regulation of burning permits.	✓	✓	·	·	·	CFA	N	All
		40	Park/Forest closures	Closure of parks and facilities at times of very high fire danger	·	✓	·	·	·	PV/DSE	N	All
		41	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	All
		42	Enforcement	Programs which support legislative compliance. Includes patrols to enforce campfire regulations, forest closures, fire cause investigations and prosecutions.	✓	·	·	·	·	DSE/PV	N	All

Figure 16: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application	
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted*	Period (Year 1, 2, 3)
Planning	Governance and Regulation	43	Bushfire Management Overlay	Development of a new overlay, includes opportunity to modify to local conditions through schedules.	✓	·	·	·	·	DPCD	N	All
		44	Bushfire Prone Areas	Interactive online map service that identifies areas likely to be subject to fires and consequent construction standards requirements	✓	·	·	·	·	DPCD	N	All
		45	Patrol/ Inspection	Inspections of assets to ensure compliance with regulations and safety requirements and to asses for fire hazards. Includes Private Property Inspections, Property Inspections, and Fire Hazard Inspection Program.	✓	·	·	·	·	LGA	N	All
		46	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	All
		47	Investigations	Investigate suspicious fires to ascertain cause and identify perpetrators	·	·	·	✓	·	Vic Pol	N	All
	Planning and Communication	48	Emergency Management Plan (Site)	CFA input into site specific Emergency Management Plans including bushfire component	·	✓	·	·	·	CFA	N	All

Figure 16: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application	
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted*	Period (Year 1, 2, 3)
Planning	Planning and Communication	49	Emergency Management Response Plans	Ensure that proper and sufficient works for wildfire prevention and suppression activities are conducted in an operationally safe, environmentally sensitive and cost- effective manner. Ensure efficient and appropriate response	·	✓	✓	·	·	PV	Y	All
		50	Technical advice	Provision of specialist technical advice and support to other agencies involved in fire mgt activities	·	·	✓	·	·	PV	N	All
		51	Fire Management Planning	DSE Fire Management Zones. Strategic landscape scale zoning of public land across the state to achieve fuel mgt outcomes	·	✓	·	·	·	DSE	N	All
		52	Planned burning	Implementation of planned burning and other works as identified in FOP on public land	·	✓	·	·	·	DSE	Y	All
		53	Crown Land fuel Management	Managing fuel loads on crown land. Includes slashing, mulching and burning.	·	✓	·	·	·	DSE	Y	All
		54	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	All
		55	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	All

Figure 16: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application	
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted*	Period (Year 1, 2, 3)
Planning	Planning and Communication	56	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	All
		57	Emergency Management support	Provide support to other organisations for emergency management, including expertise and specialist resources.	·	·	✓	·	·	DSE	N	All
		58	Emergency Relief Handbook	Information & direction for emergency relief arrangements in Vic	·	·	·	✓	·	DHS	N	All
		59	Bushfire plan	Individual Bushfire plans for DHS run facilities (as necessary)	·	·	·	✓	·	DHS	N	All
		60	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	All
		61	Public Awareness	Fire information through notice boards, brochures, signage etc to raise awareness of fire risk.	·	✓	·	·	·	SP Ausnet	N	All
		62	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	All
		63	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	All

Figure 16: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application	
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted*	Period (Year 1, 2, 3)
Planning	Planning and Communication	64	Restoration	Repair & replace damaged assets post fire so as to restore full services and minimise community impact	·	·	·	✓	·	SP Ausnet	N	All
		65	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	All
		66	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	All
		67	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	All
		68	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	All
		69	MERC	Coordinate municipal emergency response effort in the event of a major bushfire	·	·	✓	·	·	Vic Pl	N	All
		70	Evacuations	Coordinate evacuation measures undertaken in response to a bushfire threat	·	·	✓	·	·	Vic Pol	N	All

Figure 16: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application	
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted*	Period (Year 1, 2, 3)
Planning		71	Specialist Support	Provide specialist support to other agencies involved in response to a bushfire eg vehicle escorts	·	·	✓	·	·	Vic Pol	N	All
	Operational	72	Standard Operating Procedures	Dictate level of readiness according to the conditions so as to ensure appropriate resourcing & preparedness for optimum response	·	✓	·	·	·	CFA	N	All
		73	Resourcing	Strategic network of qualified & equipped staff, volunteers & appliances for mounting timely response to fires on private land.	·	·	✓	·	·	CFA	Y	All
		74	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	All
		75	Regional Resourcing & activation guidelines	Identifies DHS resource requirements for different emergencies and describes triggers for activation of different levels	·	✓	·	·	·	DHS	N	All
	Operational	76	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	All
	Financial	77	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	All

Figure 16: Risk Management Strategy

Risk Group	Risk Category	Treatment		Treatment description	Spectrum					Responsible agency	Application	
		ID #	Name		Prevention	Preparedness	Response	Recovery	Use		Targeted*	Period (Year 1, 2, 3)
		78	Emergency grants	Grant to families whose home is impacted by fire, allocated by municipality.	.	.	.	✓	.	DHS	N	All

5.4 Specific Treatments

In addition to the above Risk Assessment and Risk Management Strategy, the MFMPC came up with a list of specific treatments. This list of treatments (Figure 17 below) highlights the specific activities either currently undertaken or proposed to be undertaken to mitigate fire risk further and give further detail than listed in the Risk Management Strategy. The treatment id number refers to the Risk Management Strategy above and the Risk Id number to the Risk assessment. The specific activity treatment is listed as is the type and status of the activity. Activity custodians refer to all agencies involved in the treatment regime. In terms of a timeline, the year column refers to the three year life cycle of the plan and which year the treatment is applicable.

Figure 17: Summary of New and Specific Treatments

Number	Risk Description	Specific Treatment Activity	Activity Type	Treatment Status	P.P.R.R or Use	Activity Custodian	Year 1	Year 2	Year 3	Comment	Implementation Considerations

Figure 17: Summary of New and Specific Treatments

Number	Risk Description	Specific Treatment Activity	Activity Type	Treatment Status	P.P.R.R or Use	Activity Custodian	Year 1	Year 2	Year 3	Comment	Implementation Considerations
1	Fires spreading from roadsides and rail reserves	Develop a project to investigate roadside and rail corridor Management Issues - linkages in DSE strategic fire access roads, current fire prevention plan, strategic access/egress roads, CFA critical access roads, Rail corridor management plans	Research	New	Preparedness	MFMPC, DSE, CFA, LGA, Vic Roads, ARTC, Vic Track, Vline	Yes	Yes	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	Negotiation with rail and road corridor land managers will be required
2	Risk of fire and fire control impacting upon Indigenous heritage	Ensure Indigenous values are included on the asset databases used by fire responders and custodians	Research	New	Preparedness	MFMPC	Yes	Yes	Yes	Work closely with RAPs (Recognised Aboriginal Parties) in fire planning in the future	Knowledge of location of Indigenous heritage sites may be restricted
3	Information for campers and recreational users	Investigate the education program used for forest area recreation to inform visitors of fire risk (by request of the RSFMPC)	Research	New	Preparedness	MFMPC	Yes			Parks Vic has limited funding, "River Connect" safety talks with school children, PV rangers patrolling rivers	
4	Emergency Management Plans	LGA and CFA to work together to promote that major employers, tourist operators, event operators and other agencies develop Emergency Management Plans	Research	New	Preparedness	LGA, CFA, DSE, PV, Vic Pol, Ambulance Vic, Vic Roads	Yes			Ensure relevant agencies work together on EMPs	
5	Fire response infrastructure	Identify infrastructure that supports Fire Response (Air fields, water points, information from ~~TPP~~CIGs, Wildfire Response Plans)	Research	New	Response	DSE, PV, CFA, LGA, MFMPC, GVW		Yes	Yes	Work with local brigades to ensure local knowledge is captured, work with PV on water access along the Goulburn, urban water supplies and fire plugs, urban fringe	Essential information for fire prevention
6	Data Maintenance	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.	Up to date data is required by the MFMPC in its delivery of the MFMP, particularly at the 3 year review
7	Bushfire Management Overlays	Keep in contact with the DPCD and council's planning department regarding BMOs and requirements associated with them	Research	Proposed	Preparedness	LGA	Yes			Bushfire Management Overlays may influence MFMPs and the MFMPC needs to be aware to these	Coordinate with planning/building sections of Greater Shepparton City Council on BMO requirements.

Figure 17: Summary of New and Specific Treatments

Number	Risk Description	Specific Treatment Activity	Activity Type	Treatment Status	P.P.R.R or Use	Activity Custodian	Year 1	Year 2	Year 3	Comment	Implementation Considerations
8	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 approved by the responsible agency, the MEMPC or the MFMPC is included	MFPP is to be replaced by MFMP by October 31.
9	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 Greater Shepparton City Council. The list needs to be updated and reviewed annually.	
10	Urban Risk Profiling	Shepparton and Tatura are part of a trial of the CFA's Urban Risk Profiling tool. The results of this trial will be incorporated into the MFMP when available.	Advocacy	New	Preparedness	CFA, MFMPC		Yes	Yes	After the trial of the URPT, it may be rolled out be CFA across Victoria. Details of the trial are still being discussed	The role out of the trial is funding dependant
11	Incorporating data from Municipal Fire Prevention Plan	Ensure that data from the MFPP is not lost and transferred (where appropriate) into the MFMP.	Advocacy	New	Prevention	MFMPC	Yes	Yes	Yes	The incorporation of information from the MFPP will be divided up into 3 separate sections, one section of which will be reviewed each year	This MFMP takes the place of the MFPP and data from the MFPP will need to be put into the format of the MFMP.

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 FOPs Planning: www.dse.vic.gov.au/fire-and-other-emergencies/fire-plans-and-guidelines

5.5.2 Regulatory and Service Providers

Greater Shepparton City 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 Greater Shepparton City Council (Fire):

http://www.greatershepparton.com.au/residents/emergency/fireawareness/

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 Local Government Authority with recovery arrangements and plans outlined in the Municipal Emergency Management Plan (MEMP).

Link to DHS website: www.dhs.vic.gov.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 lay less with the impact of the actual fire and more with that of the treatments being applied. A number of the fire risk treatments adopted in Risk Management Plan pose a potential threat to some of the very values the MFMPC is seeking to safeguard. It is important that these threats are noted and that a balance be struck between protecting the community from fire and maintaining the economic, social, and environmental well being of the municipality.

A number of processes and treatments are already in place to ensure that all values are taken into consideration and protected during the planning and implementation of fire risk treatments. Where conflict does occur the MFMP offers a dispute resolution process 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 Greater Shepparton City Council 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 and improvement forms the final stage in the IFMP process during the development of the initial MFMP. However from this point on monitoring and improvement should be viewed as an ongoing activity as it actually entails continuous action, undertaken throughout the plans three year life..

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

Figure 18: City of Greater Shepparton 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 of acceptable levels of residual risk to the community. Therefore, fundamental to its success is the establishment and preservation of healthy stakeholder partnerships that allow for continued transparent and robust dialogue in the interest of achieving the Plan's objectives in the long-term. It is the role of the MFMPC to spearhead relationship management for this purpose.

Attachment 1: Risk Assessment Tables

State Bushfire Consequence Table

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

Likelihood Table

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

Risk Assessment Matrix

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

Attachment 2: Stakeholder Analysis & Community Engagement Plan

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

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

Fire Management Roles	
Role	**Description**
Fire coordination	Bringing together of fire management agencies and elements to ensure effective response to an incident or emergency. CFA has legislated responsibility under the CFA act 1958 for the prevention and suppression of fires and for the protection of life and property in the Country Area of Victoria. In accordance with provisions in the CFA Act and the Forest Act 1958, 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.

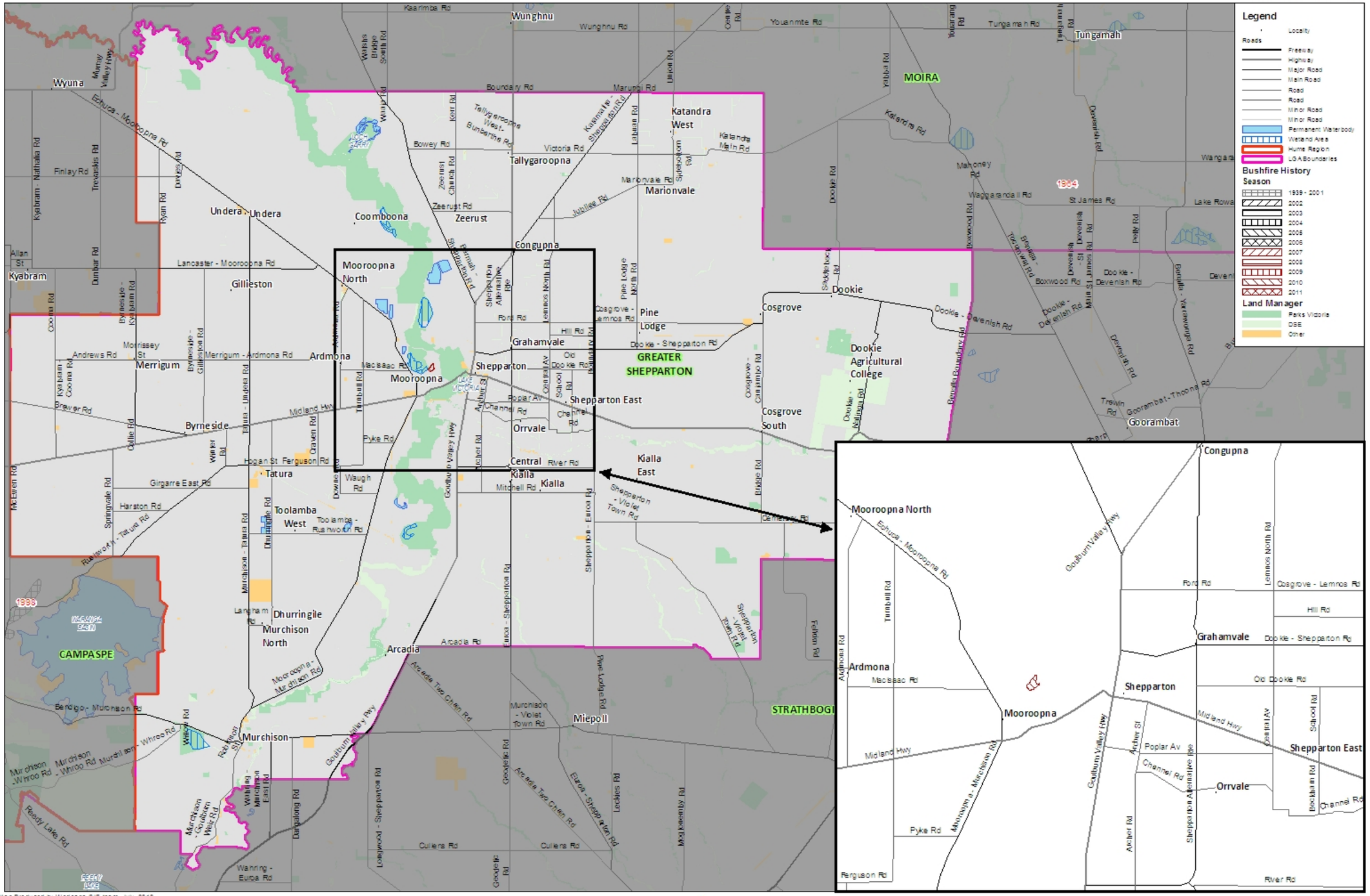
Greater Shepparton City Council MFMPC stakeholder analysis														
Stakeholder	Type				Fire management role within Hume region									
	Internal	Primary	Secondary	Tertiary	Fire coord	Land mgr	Response	Recovery	Comm info	Comm care	Asset protect	Regulate	RSFMPC member	Other
Hume RSFMPC	✓						✓	✓	✓				✓	Regional IFMP oversight & strategic fire planning
MEMPC	✓						✓	✓	✓					Municipal integrated & strategic emergency planning
MFMPC	✓						✓	✓	✓					Municipal integrated & strategic fire planning
City of Greater Shepparton	✓					✓	✓	✓	✓	✓	✓	✓		Statutory responsibility for MFMP
CFA		✓			✓		✓	✓	✓		✓	✓	✓	Fire safety expertise
DSE		✓			✓	✓	✓	✓	✓		✓	✓	✓	Forest fire expertise
Parks Victoria			✓			✓	✓	✓	✓		✓		✓	
DHS			✓				✓	✓		✓			✓	
DPCD			✓					✓				✓	✓	Oversight of rural adjustment & development programs, development of planning controls
DPI			~~✓~~	✓				✓					✓	Animal health, agricultural loss & recovery responsibilities
Vic Pol			✓				✓						✓	
SES			✓				✓						✓	
Vic Roads			✓			✓					✓	✓	✓	
SP Ausnet/ Powercor			✓							✓			✓	
Rail Industry			✓			✓					✓		✓	
Goulburn Valley Water			✓							✓	✓		✓	
Goulburn Murray Water			✓			✓					✓			
Telecommunicat-ions industry			✓							✓	✓		✓	
VFF				✓		✓								
GBCMA				✓		✓		✓			✓	✓		
DEECD				✓						✓				
Educational facilities				✓						✓				

Greater Shepparton City Council 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
Ambulance Vic				✓						✓				
Media				✓			✓		✓					
Local community/industry groups				✓										
General public				✓		✓	✓	✓			✓			Responsibility for private property, social networks & personal well being.

Greater Shepparton City Council MFMPC Communication & Engagement Plan										
Stakeholder	**Engagement Level**	**Engagement activity**								
		Meeting minutes, reports & agendas	1:1 consultation	IFMP & GSCC web site	Email updates	Media articles	Special meetings	Draft consultation	3 year review	Individual org networks
Internal Stakeholders										
Hume RSFMPC MEMPC MFMPC	Collaborate & empower	✓		✓	✓	✓	✓	✓	✓	
City of Greater Shepparton										
Primary – answerable for activity/decision										
CFA DSE	Collaborate & empower	✓	✓	✓	✓	✓	✓	✓	✓	✓
Secondary – Contributory responsibility										
Parks Victoria DHS DPCD Vic Pol SES Vic Roads SP Ausnet/ Powercor Rail Industry Goulburn Valley Water Goulburn Murray Water Telecommunicat-ions industry	Involve & consult		✓	✓		✓	✓	✓	✓	✓
Tertiary - Interested										
VFF										
GBCMA DPI DEECD Educational facilities Ambulance Vic Media Local community/industry groups General public	Inform & consult			✓		✓		✓	✓	

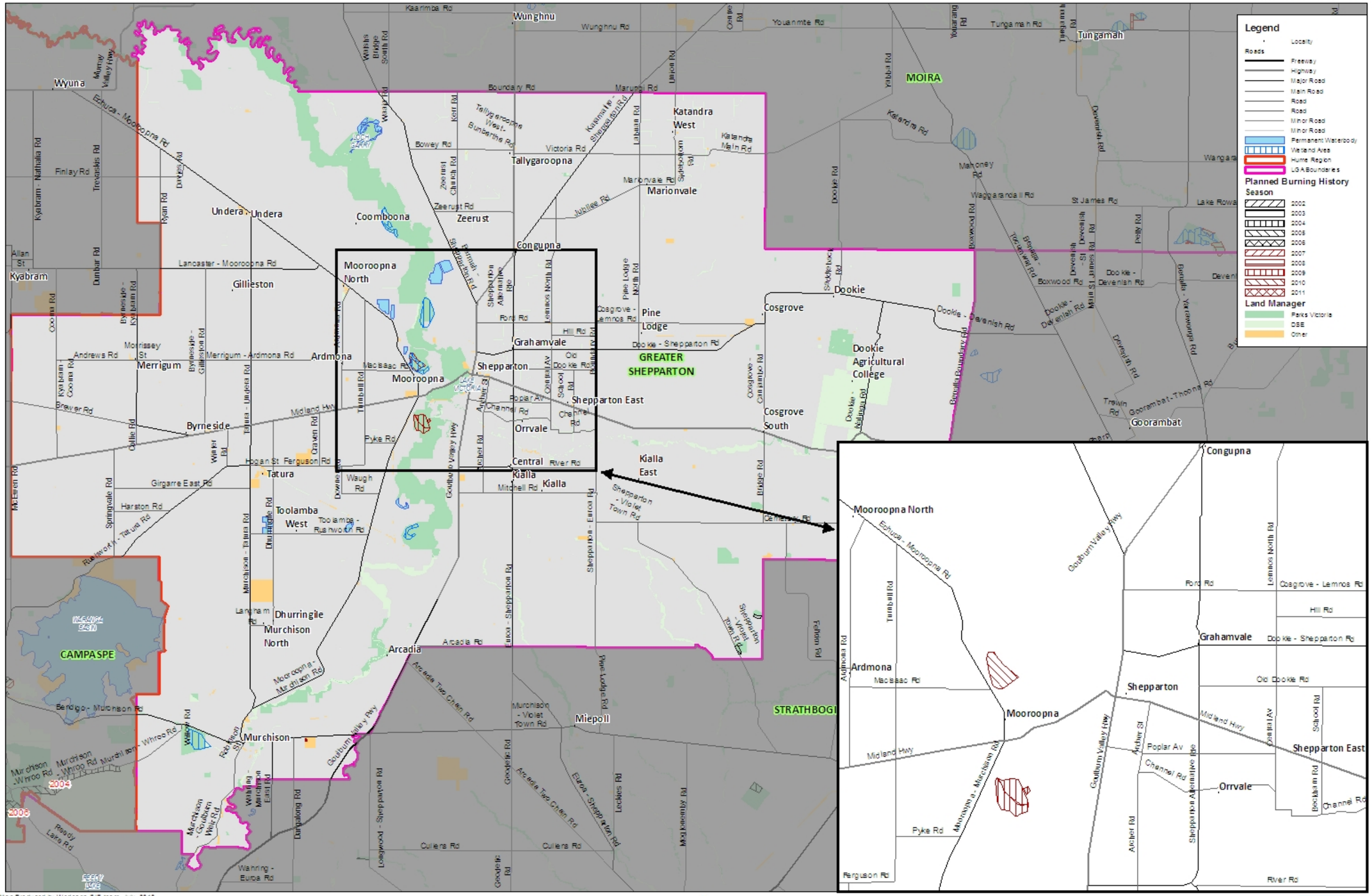
Bushfire (burnt area 1939 - 2011) - City of Greater Shepparton

Date: 24/07/2012



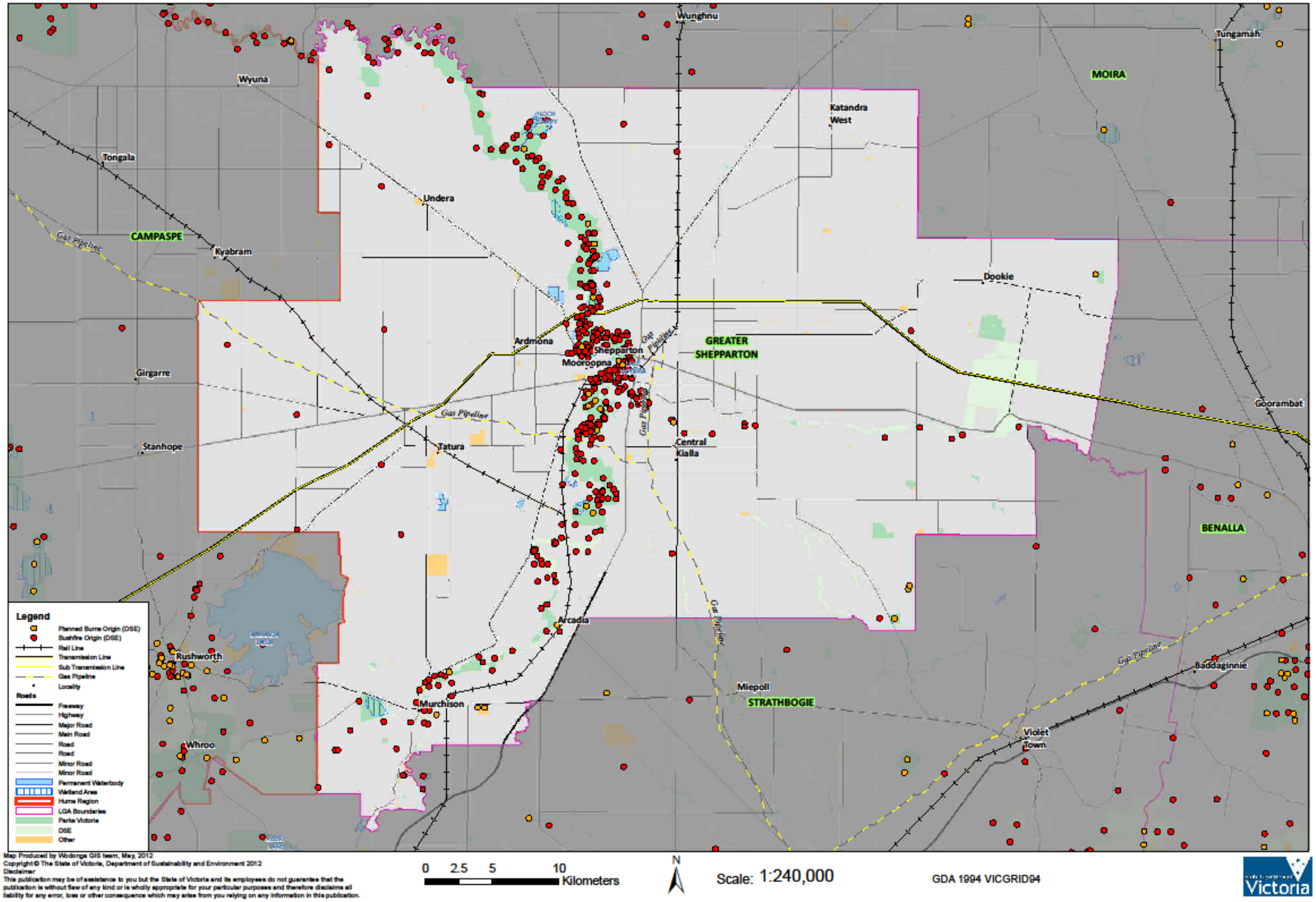
Planned Burning (burnt area 2002 - 2011) - City of Greater Shepparton

Date: 24/07/2012



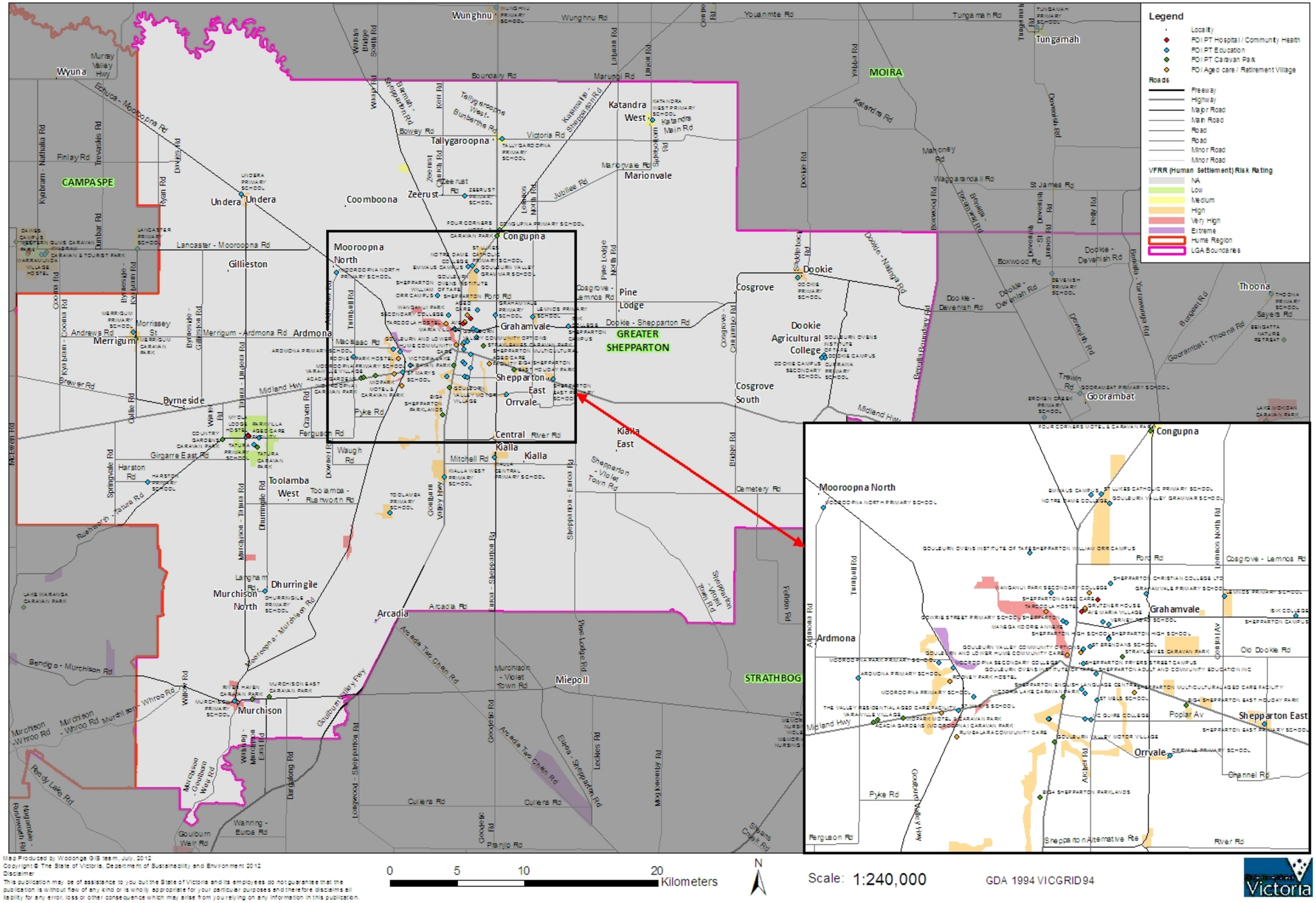
DSE Fire Origins - City of Greater Shepparton

Date: 4/06/2012



Victorian Fire Risk Register, Features of Interest & Settlement - City of Greater Shepparton

Date: 23/07/2012



0 5 10 20 Kilometers

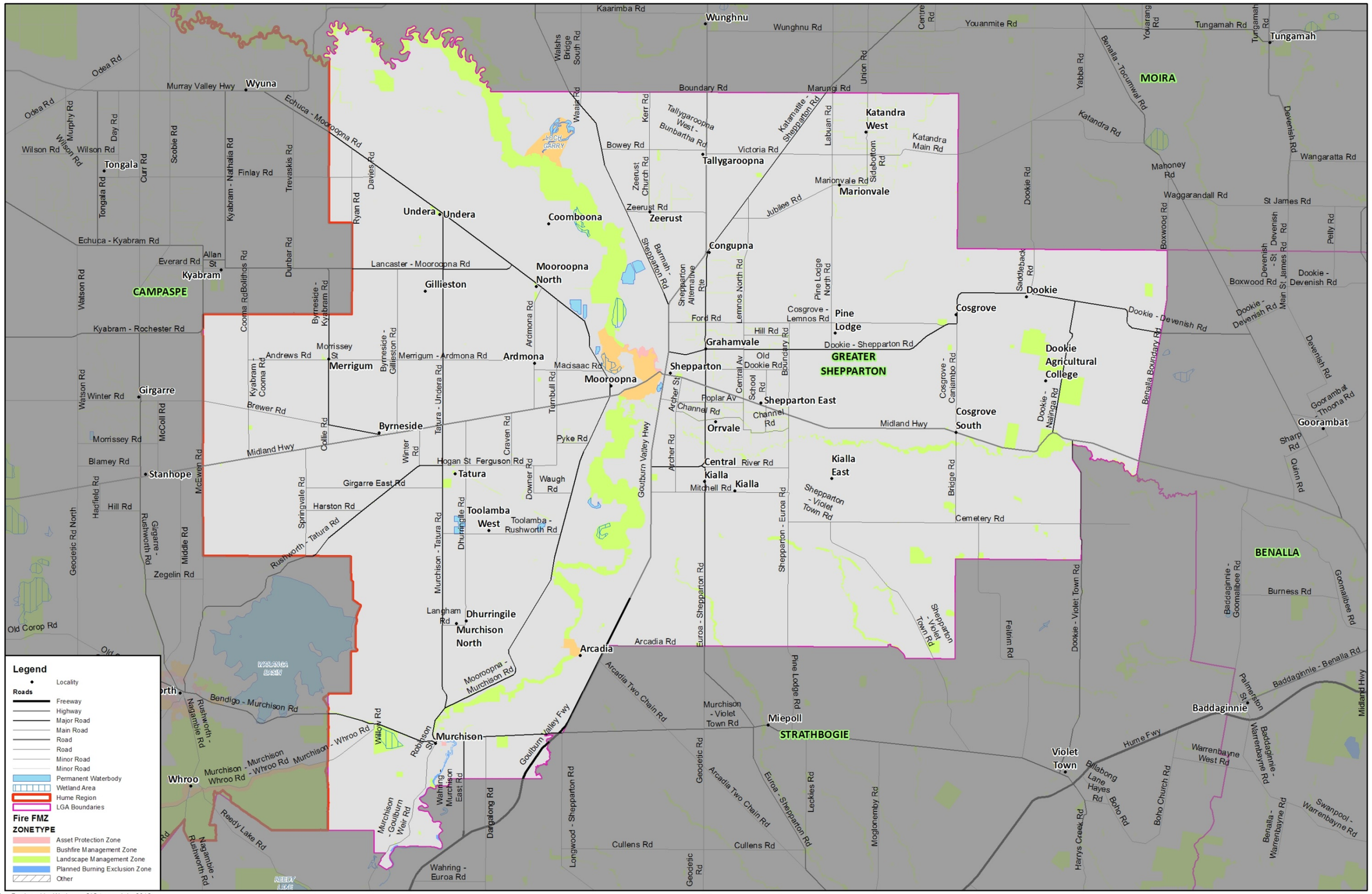
N

Scale: 1:240,000

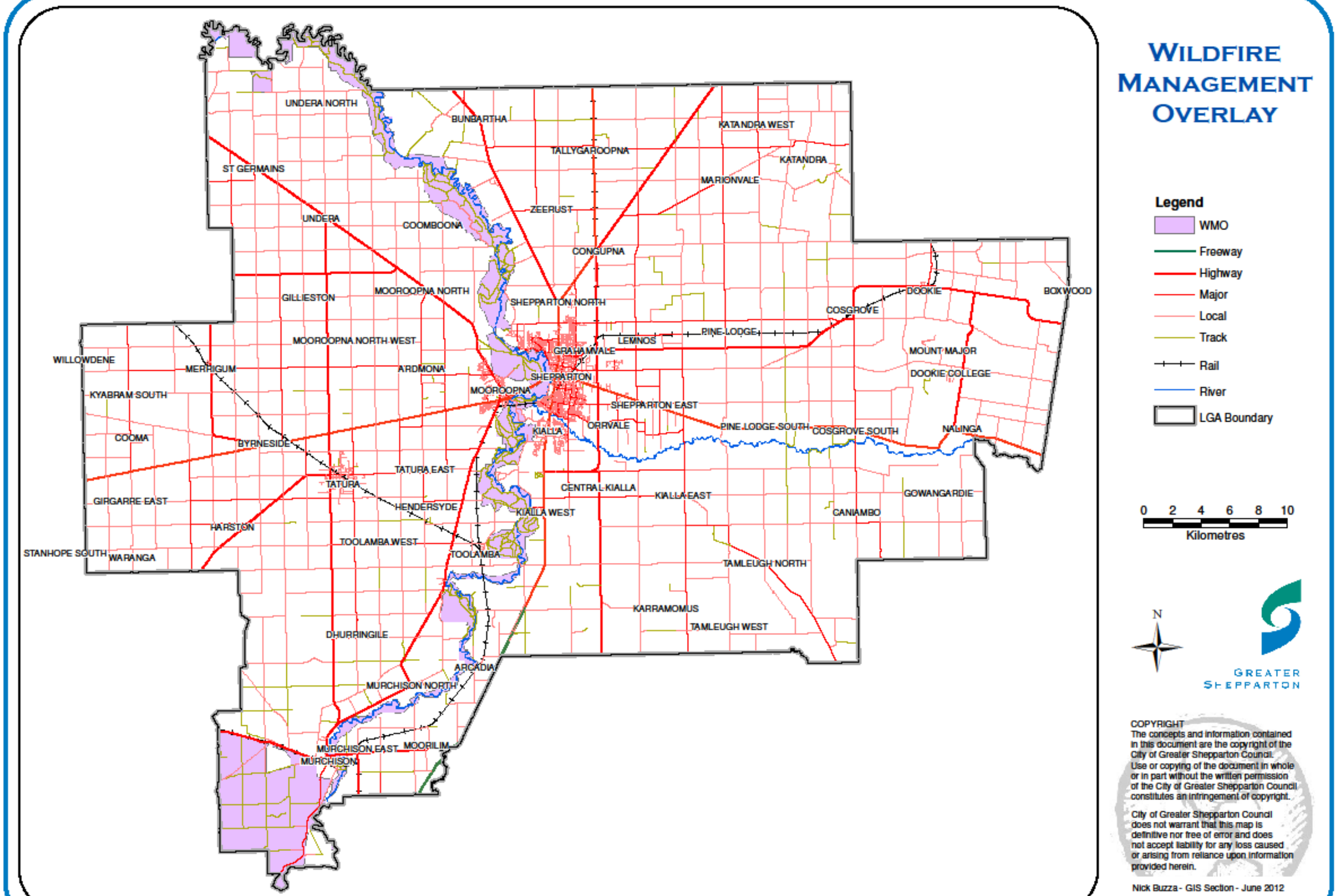
GDA 1994 VICGRID94

DSE Fire Management Zones - City of Greater Shepparton

Date: 26/07/2012



Wildfire Management Overlay



Legend

- WMO
- Freeway
- Highway
- Major
- Local
- Track
- Rail
- River
- LGA Boundary

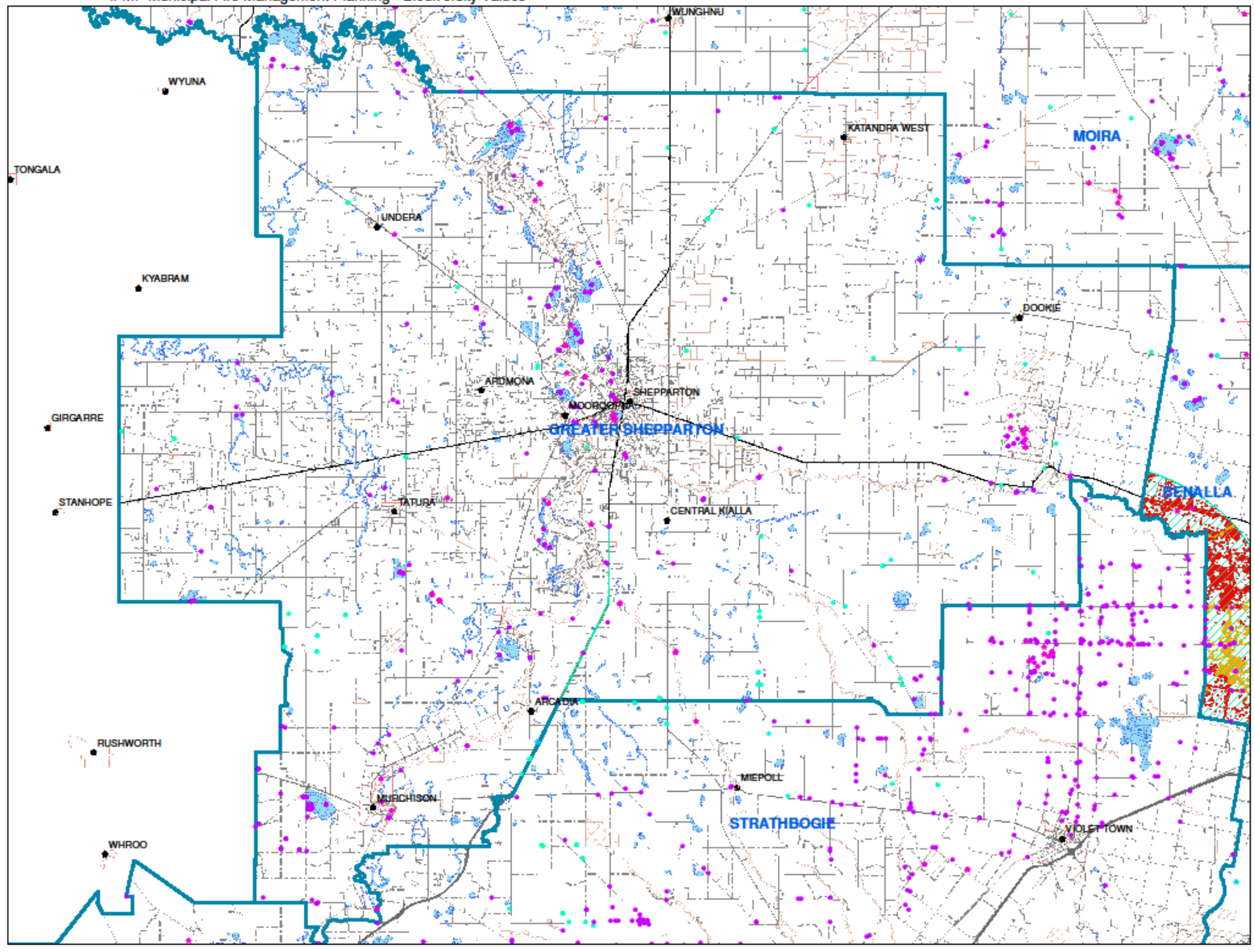
0 2 4 6 8 10
Kilometres

N

GREATER SHEPPARTON

Nick Buzza - GIS Section - June 2012

IFMP Municipal Fire Management Planning - Biodiversity Values



Legend

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

Fire Sensitive vegetation

EVC NAME

- Montane Riparian Thicket
- Montane Riparian Woodland
- Montane Wet Forest
- Sub-alpine Shrubland
- Sub-alpine Woodland
- Wet Forest
- Wetlands
- Township Polygon
- Locality
- Local Govt Areas
- 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

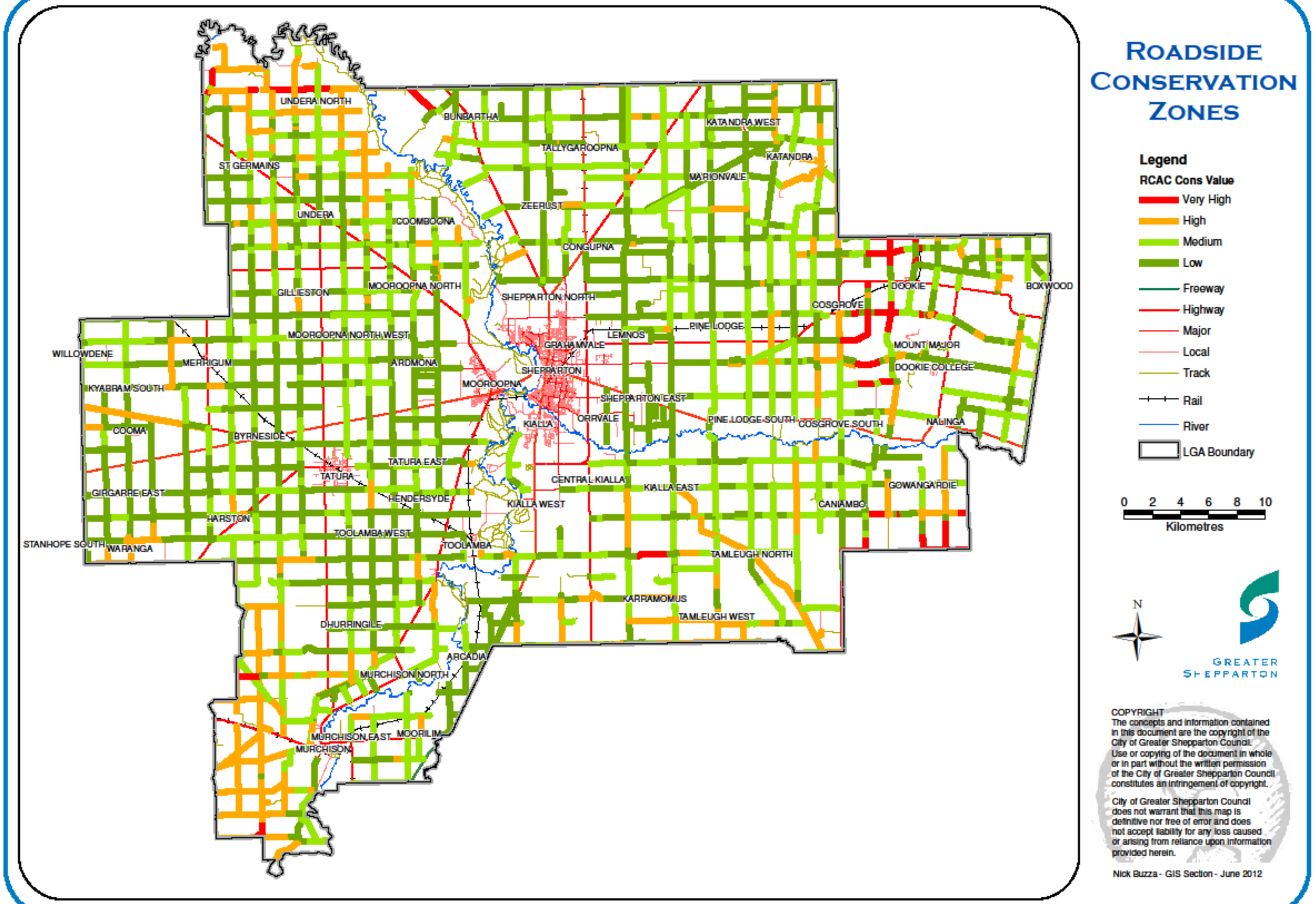
N

Date: 8/06/2012

Scale: 1:226,014

State Government Victoria

Roadside Conservation Zones



Legend

RCAC Cons Value

- Very High
- High
- Medium
- Low
- Freeway
- Highway
- Major
- Local
- Track
- Rail
- River
- LGA Boundary

0 2 4 6 8 10

Kilometres

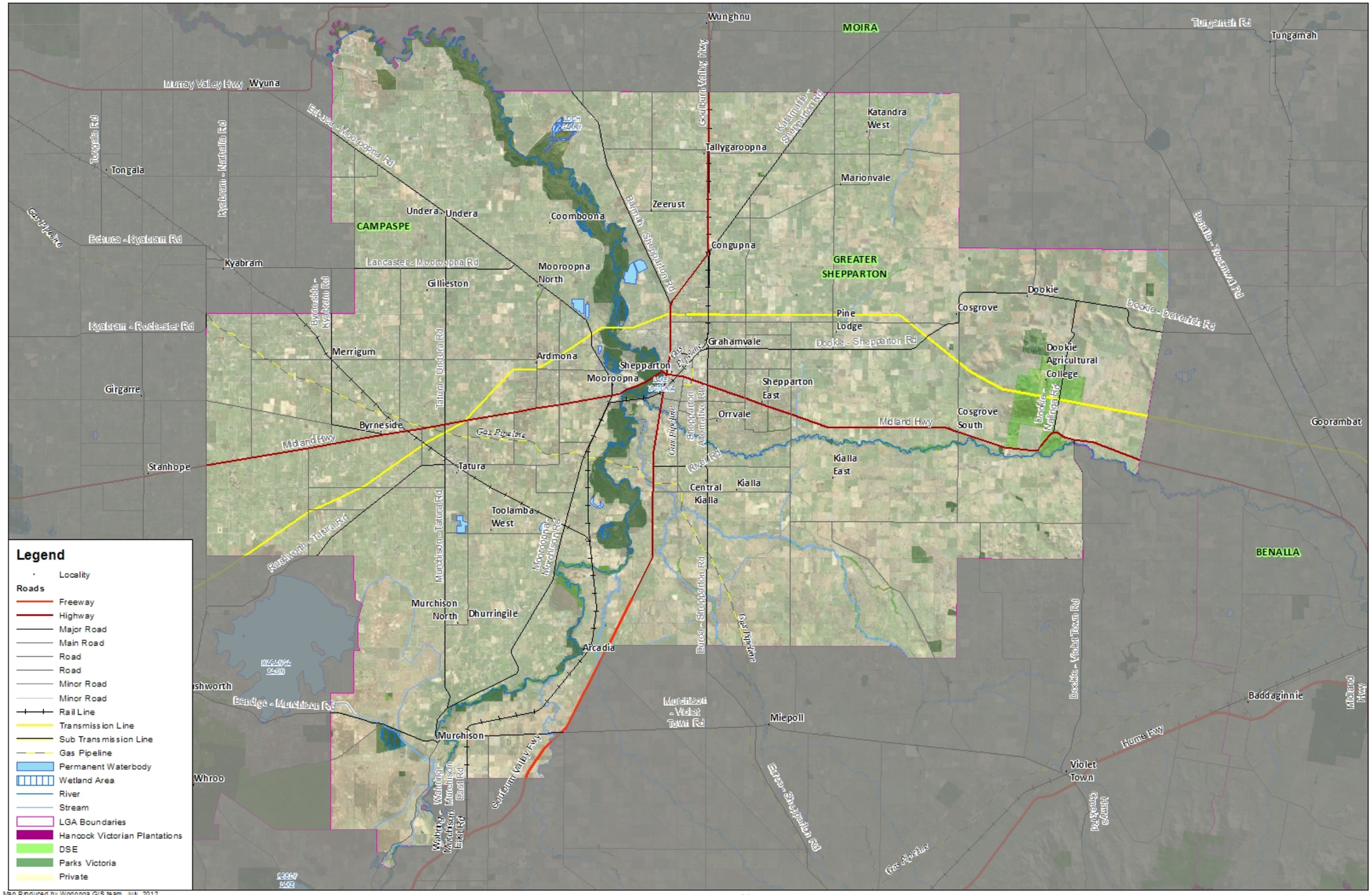
N

GREATER SHEPPARTON

Nick Buzza - GIS Section - June 2012

Natual Values (Image) Map - City of Greater Shepparton

Date: 26/07/2012



0 2.5 5 10 Kilometers

N

Scale: 1:240,000

GDA 1994 VICGRID94

Attachment 4: Hazard Trees – Identification and Notification Procedures

Note: The following is a template provided by the Municipal Association Victoria and the Hazard Trees – identification and Notification Procedures for GSCC will be developed by the Municipal Fire Management Committee.

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.

Responsible Persons within Greater Shepparton City Council

There are a number of organisations that have responsibility for line clearance in **Greater Shepparton City Council area,** including:

- [*insert name of distribution business*]
- [*insert name of second distribution business, if applicable*]
- [*insert name of other responsible persons eg third distribution business, VicRoads etc., if applicable*]
- *[if there Is a declared area within the municipality, insert name of Shire or Municipality*]

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).

[*Use this section to insert any other relevant information in relation to responsible persons, or electric line clearance, including cross-references to other areas within the Plan where relevant*]

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 hall 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**) [*or alternative person as nominated and agreed by the Committee] is the person to whom potentially hazardous trees should be reported.*

- The primary responsible person (or their representative) is referred to in these Procedures as the primary responsible person representative (**PRPR**).

- Where any person becomes aware of, or receives a report of, a potentially hazardous tree within the municipality, this should be referred to the PRPR. Where the Committee becomes aware of, or receives a report of, a potentially hazardous tree within the municipality, this must be referred to the PRPR.

- Reports of potentially hazardous trees must be provided to the PRPR for action as soon as practicable. Reports must include, at a minimum:

    - The name and contact details and any relevant qualifications where known of the person making the report

    - As much detail as possible about the location of the trees (including, where known, GPS coordinates, details of numerical/name plate on nearest pole, name of nearest road or crossroads, closest landmark, whether tree is on private land or road reserve etc.)

    - A description of the tree (including, if known, the genus and species of tree)

    - The primary 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 [*insert name of responsible person (agency name) with responsibility for the highest percentage of lines within the Local Government Act OR alternative person (agency name) as nominated and agreed by the Committee*].

Contact details for the [*insert name of PRPR*], are as follows:

Agency name	(*eg. SP Ausnet, Powercor etc*)
Position title of contact person	
Telephone Number	#
Email Address	#
Facsimile Number	#

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 [*insert period, eg. The close of the next business day*].
		No=> the PRPR must advise the responsible person of the existence and location of a potentially hazardous tree in accordance with the 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 [*insert period, eg. 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

Community Information Guides (CIGs) have been completed and are available for the following towns in the Greater Shepparton City Council:

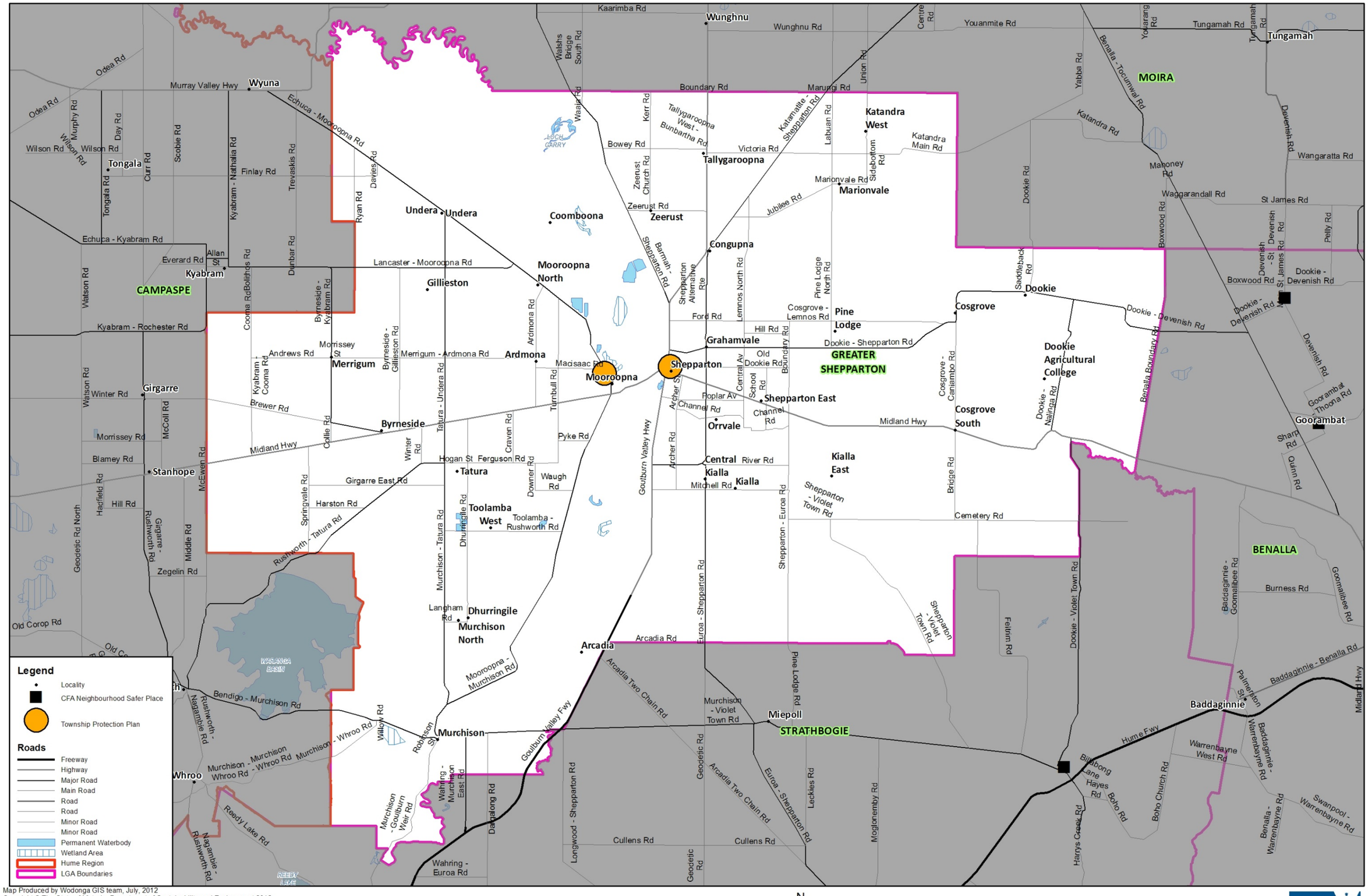
- Shepparton
- Mooroopna

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

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

The map below shows the location of current CIGs in the City of Greater Shepparton.

Neighbourhood Safer Places & Community Information Guides – City of Greater Shepparton



Map Produced by Wodonga GIS team, July, 2012

0 2.5 5 10 Kilometers

N

Scale: 1:240,000

GDA 1994 VICGRID94

Attachment 6: Structural Fire (Extract from GSCC Municipal Fire Prevention Plan - 2010

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.

a) Structural Risk Summary

Dwellings	The risks directly associated with the building, its contents and inhabitants irrespective of the location.
Townships	The risks relating to the land including vacant land, parks and reserves within the township, road reserves and the availability of water for fire fighting.
Rural Residential	The risks relating to the land for larger allotments outside the townships, the provision of access and services, and outbuilding located on those allotments.
Industrial	The risks relating to the building, operation, process, materials used and stored, and land associated with the premises irrespective of the location.
Commercial	The risks relating to the building, operation, goods stored, and land associated with the premises within the townships. Commercial premises do not include those where accommodation is provided.
Healthcare	The risks relating to the building, occupants, operation, goods stored, and land associated with the premises within the townships.
Public Accommodation & Tourist Facilities	The risks relating to the building, occupants, operation, and land associated with the premises irrespective of the location. Public accommodation premises are those where people are able to sleep overnight.
Public Assembly & Entertainment Venues	The risks relating to the building, occupants, and land associated with the premises irrespective of the location. People to not sleep over night at these premises unless special arrangement have been made and the relevant approvals obtained. Night clubs, cinemas, schools and preschools are included in this category.
Rural	The risks relating to the land for large allotments outside the townships and rural residential areas; the provision of access and water supplies, and outbuilding located on those allotments.

Transport	The risks relating to airports, and road and rail network, and the adjoining reserves and vegetation.
Special Risks	These are specific risks not included above.

b) Dwellings

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 cities of Mooroopna and Shepparton; the towns of Dookie, Murchison, Tallygaroopna, Tatura and Toolamba; and the rural districts of Arcadia, Bunbartha, Byrneside, Caniambo, Cosgrove, Congupna, Katandra, Kialla, Lancaster, Moorilim, Nalinga, Pine Lodge, Tamleugh and Undera.

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. In the two years prior to April 2007, there were 2.5 deaths of children under 14 years old and in the fire year period 2000 to 2005 there were 333 hospital admissions for burns and scalds. 72% of the burns and scalds were for children under five years of age.

(i) Risks, Strategies, Programs and Actions

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Loss of life.	Significant	Maintain nil level	Community Education targeting smoke detector and burning off requirements using the following: • Brigades in schools (Home Fire Safety) • CFA mobile education unit (Home Fire Safety) - (Wen Available) • 6 monthly articles in the Shepparton News and Local Media. Information to be provided in languages other than English as deemed appropriate by the MFPO.	Municipality – MFPO & CFA -CEC	Fire Brigades	Ongoing.
Personal injury.	Significant	Minimise incidence and severity.	Inspect new and altered dwellings for smoke detector installation. Undertake random 24 checks per year of existing dwellings.	Municipal-MBS & Private Building Surveyors		Ongoing

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Property loss.	High	Minimise incidence and severity	Home Help and Home Carers should be provided with Fire Safety Awareness training to reinforce the residential fire safety needs and requirements with those they provide services to. (Private Provider to provide training)	Municipality - MFPO	CFA-CEC	Ongoing Annually
			Home Carers to check for smoke detector operation when in dwellings.	Municipality - MFPO	CFA-CEC	Ongoing.
			Home Carers to be provided with training in smoke detector operation testing.	Municipality – Manager – Home Care	CFA-CEC	Ongoing.

c) Townships (Residential-General)

(i) Context

The major cities within the Municipality are Mooroopna and Shepparton. Other population centres that may be classed as 'Townships' are Dookie, Dookie College, Katandra West, Merrigum, Murchison, Tallygaroopna, Tatura and Toolamba.

Some of these towns are located near rivers or streams and/or heavily timbered areas, and can be characterised as having many older timber buildings, an irregular layout, and in some 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.

Neglected areas of land or buildings can pose a significant fire risk to the adjoining landholders/occupiers and wider community.

The vegetation patterns throughout the towns require regular maintenance clearance to exposed aerial power conductors, hence also requiring regular inspection programs.

The cities of Mooroopna and Shepparton and the towns of Dookie, Dookie College, Katandra West, Merrigum, Murchison, Tallygaroopna, Tatura and Toolamba 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.

(ii) Risks, Strategies, Programs and Actions

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Property loss and loss of personal effects.	Significant	Minimisation of loss of property and personal effects.	Undertake property inspections under Section 41 of the CFA Act in conjunction with local CFA Brigades. Issue Fire Prevention Notices to owner/occupier whose property contains a fire /potential fire hazard.	Municipality - MFPO	Owner / Occupier/Brigades	Early November Annually - Ongoing
Loss of life and personal effects.	Significant	Maintain nil loss of life and minimise personal injury	Undertake/coordinate inspection and maintenance of fire plugs and markers.	Municipality-MFPO	Brigades& Water Supply Authority	Ongoing.
Environ-mental damage	Moderate	Minimise damage	Community Education targeting fire hazard removal and burning off requirements using the following: • 6 monthly articles in the Shepparton News and Local Media. Information to be provided in languages other than English as deemed appropriate by the MFPO.	Municipality MFPO	Fire Brigades/ CFA-CEC	Ongoing
			Undertake clearance of vegetation from power lines in the Declared Areas in accordance with the Code of Practice.	Municipality – Manager Waste & Open Space		Annually – Ongoing.

d) Industrial

(i) Context

There are a significant number of large regionally based industries within the Municipality that rely on the supply of raw materials from the local area. The major industries at risk are the food processing plants, cool-stores, timber processing plants, engineering/fabrication works, 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 of smaller depots and industries that are located within all the townships 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 than the proprietors.

Due to changes in ownership and operation, there can be significant areas of neglected land or vacant buildings where rubbish and general fire hazards accumulate.

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.

(ii) Risks, Strategies, Programs and Actions

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Loss of life and personal injury from the effects of uncontrolled fire.	significant	Minimise incidence and severity.	When inspecting buildings, ensure that the Fire Protection Equipment including appropriate signage is in place and functioning as required by the relevant legislation	Municipality-MBS / CFA-FSO		Ongoing.
Property loss and resultant Economic loss both Public and Private.	Significant	Minimise incidence and severity.	Ensure that water for firefighting purposes and access requirements meet the provisions required by the Referral Authority (CFA).	Municipality-Manager Planning	CFA-FSO	Ongoing.

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Environmental damage.	Significant	Minimise incidence and severity.	Inspection of all properties within all urban areas to ensure that there are no unacceptable fire hazards. The issuing of notices and appropriate follow up for the removal of fire hazards in the Township areas as required under Section 41 of the CFA Act.	Municipality-MFPO	Brigades	Early November - Ongoing.
			Community Education including details in accordance with the Emergency Manual eg Dangerous Goods audits requirements using the following: • 6 monthly articles in the Shepparton News and Local Media. Information to be provided in languages other than English as deemed appropriate by the MFPO.	Municipality-MFPO	CFA-FSO/ WorkCover Authority	Ongoing.

e) Commercial

(i) Context

There are a number of vibrant major Commercial Centres within the Municipality that are located within cities of Mooroopna and Shepparton and the towns of Dookie, Murchison, Tallygaroopna, Tatura and Toolamba; 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 of 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 practices and general fire safety can raise the level of risk to the general public and the owners/employees.

(ii) Risks, Strategies, Programs and Actions

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Loss of life from the effects of uncontrolled fire.	Significant	Maintain current nil level.	Risk management, including the inspection of Essential Safety Measures. A minimum of 12 properties per year on a random basis as necessary. Provide information to owners/occupiers as required. Follow up with inspections and application of enforcement under the Building Code of Australia (BCA) as necessary.	Municipality – MBS		Ongoing
Loss of property from the effects of uncontrolled fire.	Significant	Minimise incidence and severity.	Include information about fire hazards in Commercial Areas in Column in the Shepparton News and Local Media, 6 monthly. The information will be provided in languages other than English as deemed appropriate by the MFPO.	Municipality – MFPO		Ongoing
Personal injury from the effects of uncontrolled fire.	Moderate	Minimise incidence and severity.	When inspecting buildings, ensure that exits are unobstructed and functioning as required by the relevant legislation.	Municipality - MBS & CFA-FSO		Ongoing
Environmental damage.	Significant	Minimise incidence and severity.	Ensure that water for firefighting purposes and access requirements meet the provisions required by the Referral Authority (CFA).	Municipality - Planners	CFA-FSO	Ongoing
			When inspecting buildings, ensure that the Fire Protection Equipment including appropriate signage is in place and functioning as required by the relevant legislation.	Municipality - MBS & CFA-FSO	FEM Brigades	Ongoing

f) Health Care

(i) Context

There are Health Care Centres located in Shepparton, Mooroopna, Tatura and Murchison. By nature they contain a population that in general is dependent on outside assistance for mobility, day to day living, control and direction. Consequently this group that encompasses; special accommodation, nursing homes, hostels and hospitals are very vulnerable to a wide range of events.

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

(ii) Risks, Strategies, Programs and Actions

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Loss of life from the effects of uncontrolled fire.	Significant	Maintain current nil level.	Identify and maintain a database of at risk premises. Details to be placed in Appendix F.	Municipality – MFPO/MBS	Department of Human Services and Department of Health, CFA-FSO & WorkSafe Victoria	December 2007 and then updated annually- ongoing.
Loss of property from the effects of uncontrolled fire.	Significant	Reduce incidence and severity	Risk management, including the inspection of a minimum of 5 properties per year and encourage compliance with the BCA where necessary.	Municipality - MBS & CFA -FSO	WorkSafe Victoria & Fire Brigades	Ongoing
Environmental damage.	Moderate	Maintain current nil level.				

g) Public Accommodation and Tourist Facilities

(i) Context

There is a wide variety and range of these premises within the Municipality with a ranging from hotels and caravan parks to hostels for the aged. 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.

In some instances a lack of knowledge or commitment by the operators of the premises leads to a situation where the premises do not comply with safety requirements.

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).

(ii) Risk Environments, Strategies, Programs and Actions

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Loss of life.	High	Maintain current nil level.	Fire Prevention Planning. Develop a database of all at risk premises. Details to be added in Appendix G. Analyse database for risk and rank in priority order.	Municipality – MFPO/MBS	CFA-FSO, & DSE	December 2007 and then updated on an ongoing basis.
Loss of property.	Significant	Reduce incidence and severity	Risk management, including the collection Annual Essential Safety Measure Reports for a minimum of 5 properties per year on a random basis and application of enforcement under the BCA where necessary.	Municipality - MBS	CFA-FSO & Hospitality Industry	Commence December 2007 then annually ongoing.
Economic loss both Public and Private.	High (Non-Urban)	Reduce incidence and severity	Environmental Health Officers to recognise fire risks in Caravan Parks in accordance with Emergency Management Plans. Particular attention to be made in relation to requirement under the Residential Tenancies and Movable Dwelling Act & Regulations and the 'Caravan Park Fire Safety Guidelines'- Published by the CFA 2006.	Municipality- Manager Sustainability & Environment	CFA-FSO	Ongoing.

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
	Low (Urban)		Environmental Health Officers to recognise fire risks in registered premises. EHO's to be provided with a Checklist to be used when undertaking their inspections on Registered Premises.	Municipality – Manager Sustainability & Environment	Municipality -MBS	Ongoing.
			When inspecting buildings, ensure that the Fire Protection Equipment including appropriate signage is in place and functioning as required by the relevant legislation.	Municipality – MBS/CFA - FSO	CFA-FSO	Ongoing.
			When inspecting buildings, ensure that exits are unobstructed and functioning as required by the relevant legislation.	Municipality – MBS / CFA - FSO	CFA-FSO	Ongoing.
			Ensure that water for firefighting purposes and access requirements meet the provisions as required by Referral Authorities.	Municipality – Manager Planning	CFA-FSO & DSE	Ongoing.

h) Public Assembly and Entertainment Venues

(i) Context

There are two levels of risk. A number of these premises within the Municipality including public theatres, public halls, outdoor festivals/public entertainment/events, sporting complexes, churches, TAFE Colleges, schools, preschools and childcare centres are relatively low risk. The high risk premises could include night clubs, and special events. 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 instances a lack or knowledge or commitment by the operators of the premises leads to a situation where the premises do not comply with safety requirements.

The occupants generally have very little control over their surroundings and invariably have little interest in the risks associated with the premises.

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). Past experience has shown that fires in dance halls or similar locations can have catastrophic consequences.

(ii) Risks, Strategies, Programs and Actions

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Loss of life from the effects of uncontrolled fire.	Significant	Maintain current nil level.	Fire Prevention Planning. Develop a database of all high risk buildings and events. Analyse database for risk and rank in priority order and determine inspection needs.	Municipality - MFPO/MBS	CFA-FSO, WorkCover Authority & Dpt Health	Commence December 2007 then annually ongoing
Loss of property from the effects of uncontrolled fire.	High	Reduce incidence and severity	Risk management, including the inspection of properties where necessary.	Municipality – MBS/Planning/Local Laws (As Required)	CFA-FSO, WorkCover Authority & Dpt Health	Ongoing
Social/ Economic loss both Public and Private.	Significant	Reduce incidence and severity	Ensure that water for firefighting purposes and access requirements meet the provisions required by the Referral Authority (CFA).	Municipality – Town Planners	CFA-FSO	Ongoing.
			When inspecting buildings, ensure that the Fire Protection Equipment including appropriate signage is in place and functioning as required by the relevant legislation.	Municipality – MBS/ CFA-FSO		Ongoing.
			When inspecting buildings, ensure that exits are unobstructed and functioning as required by the relevant legislation.	Municipality – MBS/ CFA-FSO		Ongoing.

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
			The provision of fire prevention information from Event Operators for distribution to participants, and all relevant authorities.	Event /Facility Operator	Municipality – Special Events Manager, Relevant Building Surveyor, DSE , CFA - CEC Parks Victoria, & Brigades	Ongoing
			Ensure that Planning Permits for events on private property include the requirement to provide approved Emergency Management Plans.	Municipality – Planning Officer	Referral Authorities	Ongoing

i) Transport

(i) Context

The Midland Highway, the Goulburn Valley Highway, and the rail lines to Shepparton, Cobram and Echuca traverse the Municipality. These links are critical to economy of the region, as the Greater City region is one of the biggest road freight centres in the nation outside of Melbourne and Sydney. These transport links however provide a potential fire ignition source due to vehicle malfunction, accident or inappropriate disposal by the users of burning material 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 grass land to that of the bushed hills, giving a wide range of risk environments and hence the associated treatments must vary accordingly.

(ii) Risk Environments, Strategies, Programs and Actions

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Loss of life from the affects of uncontrolled fire.	Significant	Maintain current nil level.	Liaison with Vic Roads and V Line to ensure that fuel reduction works on the land under their control is optimised and undertaken prior to December each year.	Municipality – MFPO & CFA-MCS	Brigades	October Annually – Ongoing.
Loss of property from the affects of uncontrolled fire.	Significant	Reduce incidence and severity.	Alleviate the risk through strategic identification of priority access roads, control lines, and fire Access Roads and, undertake maintenance as required. Undertake appropriate works to ensure the safety of the travelling public and provide safe access for Emergency Services in the time of fire.	Municipality - MFPO, VicRoads, Public Transport Corporation, DSE & CFA -MCS	WorkCover Authority, Landholders	August to November Annually
Environmental damage.	Significant	Prevention/reduction of environmental damage as a result of uncontrolled fire.				

VicRoads requires that local land holders and Brigades wishing to undertake fire prevention work along the road frontage of Highways and Freeways under the direct control of VicRoads must obtain approval. The application shall be in accordance with the process defined in the CFA Guidelines and Procedures for Rural Roadside Fire Management Works prior to undertaking any work. (It should be noted that no new ploughed or graded fire-breaks will be approved).

j) Special

(i) 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 and ready access provided for Fire Fighting Vehicles at the site.

The following specific sites have been identified:

- Goulburn Valley Aero Club
- Undera Speedway
- Shepparton Aerodrome
- Ardmona Kids Town
- Causeway
- Fuel Reduction burning along the Broken River at Kialla and along the Murchison East Road at Moorilim
- Forest Bike Paths
- Maude Street Mall

(ii) Risks, Strategies, Programs and Actions

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Loss of life from the affects of uncontrolled fire.	High	Prevention of loss of life and injury reduction.	The provision of fire prevention information from Event Operators for distribution to participants, and all relevant authorities.	Event /Facility Operator	Municipality – Special Events Manager/ Special Events Manager , Relevant Building Surveyor, DSE , CFA - CEC Parks Victoria, & Brigades	Ongoing
Loss of property from the affects of uncontrolled fire.	Moderate	Reduce incidence and occurrence.	Liaise with management, facility operators and local authorities to encourage familiarity with emergency response plans and practices.	Event /Facility Operator	Facility Operators, Municipality – MFPO, CFA-MCS & Brigades	Ongoing

Risk		Objective	Treatment/Program/Action	Responsibility	Others Involved	Time Frame
Details	Rating					
Environmental Damage	Significant	Reduce incidence and occurrence.				

Attachment 7: Roadside Management

FUEL REDUCED CORRIDORS/PRIORITY ACCESS ROADS

General

It is acknowledged that Fire Brigades may identify and undertake treatments on local roads as Fuel Reduced Corridors within their own brigade boundaries, which may not necessarily be identified in the Municipality Strategy. 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.

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

Prior to undertaking any burning on a roadside the brigade(s) must contact the regional headquarters in Shepparton who will coordinate the appropriate approvals for traffic and conservation management. Conservation Management will include discussions with DSE and the Council's Sustainability & Environment Department.

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

Priority Access Roads

Priority Access Roads must be sufficiently fuel-reduced to minimise the risk and 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.

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

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

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

(b) The grading of a strip to bare earth 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 removed to prevent the accumulation of earth and dry vegetation next to the break. The maximum grading width for grassland sites shall be 6.0 m.

(c) The spraying of herbicide where other treatments are not practical or cost effective, to create a strip at least 3 m 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.

(d) Removing dangerous trees.

Attachment 8b (below) contains a diagram for typical works on Priority Access Roads.

The following Priority Access Roads have been identified:

- Midland Highway
- Murchison Bendigo Road
- Goulburn Valley Highway
- Barmah Shepparton Road
- Shepparton Dookie/Dookie Devenish Road

It should be noted that all the above roads are managed by VicRoads

Fuel Reduced Corridors

Fuel Reduced Corridors must be sufficiently fuel-reduced to minimise the risk to 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. It should be noted that these roads may be closed to the general public when they are impinged upon by fire.

Fuel Reduced Corridors should have the fine fuel reduced to within the road maintenance envelope (as defined in the Interim Routine Roadside Maintenance Tree Branch Pruning Flowchart TRIM M12/49745) on either side of the road where practical. All overhanging obstructions less than 5 m above the road pavement must be removed, and dangerous trees/limbs need to be removed to allow the safe passage of fire fighting appliances. They must be inspected annually by the controlling road authority and maintained prior to the fire danger period.

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

(a) Mowing or slashing a strip 2.5 metres wide maximum on one or both sides of the road reserve, either adjacent to the shoulders of the pavement, or next to or inside the adjoining property, at the appropriate time to prevent regrowth and accumulation of dry slashed material.

(b) The grading of a strip to bare earth not more than 2.5 meters wide on both sides of the road reserve adjacent to the shoulders of the pavement. The over burden from the graded break should be removed to prevent the accumulation of earth and dry vegetation next to the break.

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

(d) Fuel reduction low intensity burning by fire brigades on a coordinated basis. Fuel reduction burning shall only be required when the fuel load exceeds 4 tonne per hectare. Fuel loadings on the

roadsides identified for burning are to be reviewed annually by the Municipality in the spring of each year.

(e) The spraying of herbicide where other treatments are not practical or cost effective, to create a strip a maximum of 2.5m wide with little or no vegetation present on both sides of the road reserve adjacent to the shoulders of the pavement. Burning may then follow as required. Spraying of native grasses should be avoided.

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

Appendix D contains a diagram for typical works on Fuel Reduced Corridors as per Figure 1 in the Routine Roadside Maintenance Tree Branch Pruning Flowchart (TRIM M12/49745).

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:

- No Fuel Reduced Corridors have been identified at this time, however extensive slashing/spraying is carried out by the Shire on the shoulders of most sealed roads throughout the fire season.

Fire Access Roads

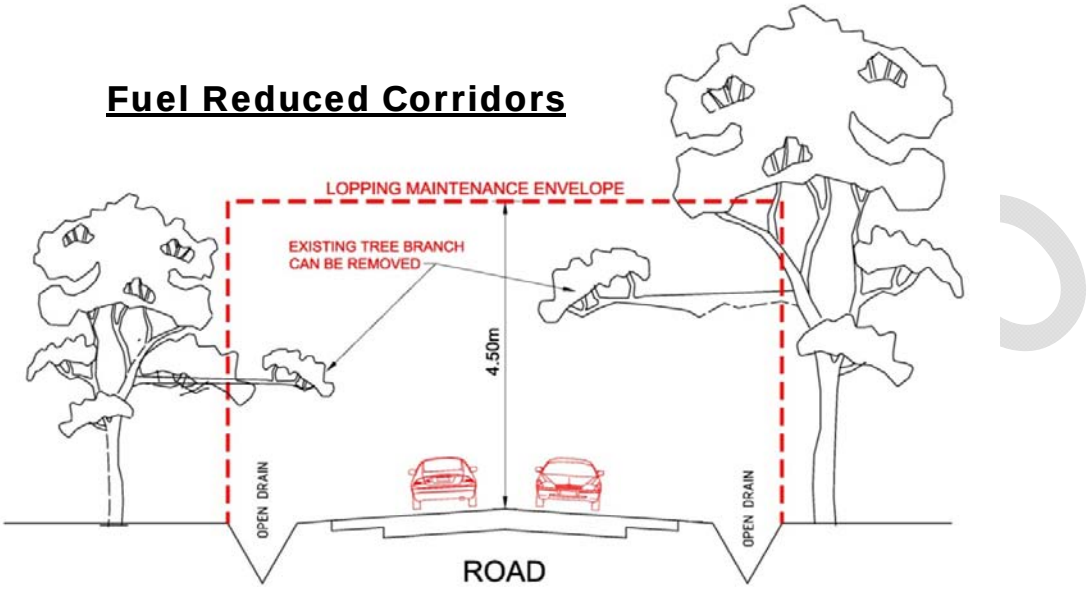
These roads are required to provide summer access for fire fighting vehicles and will be maintained by the Council accordingly, prior to the summer period.

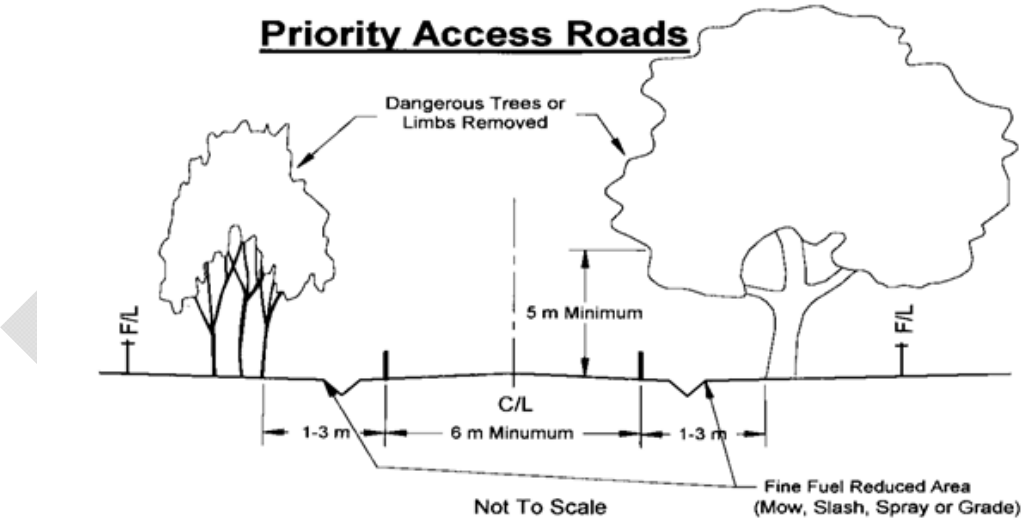
The following DSE Fire Access Roads have been identified:

- Nil

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.





Attachment 8: Glossary

ARMB	Alpine Resorts Management Board
ABS	Australian Bureau of Statistics
APT	Australian Pipeline Trust
BASO	Brigade Admin Support Officer
CERM	Community Emergency Risk Management
CIG	Community Information Guide
CFA	Country Fire Authority
COL	Consequence of Loss
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
EMA	Emergency Management Act
EMMV	Emergency Management Manual Victoria
EPBC	Environmental Protection Biodiversity Conservation
FDI	Fire Danger Index
FFG	Flora and Fauna Guarantee
FOI	Feature Of Interest
FRB	Fuel Reduction Burn
GBCMA	Goulburn Broken Catchment Management Authority
GMW	Goulburn Murray Water
GVW	Goulburn Valley Water
HVP	Hancocks Victoria Plantations
IAP	Incident Action Plan
IFMP	Integrated Fire Management Planning
IRSED	Index of Relative Social & Economic Disadvantage
ISO	International Standards Ordinance
LGA	Local Government Area
MDA	Map Display Area
MEMP	Municipal Emergency Management Planning
MEMPC	Municipal Emergency Management Planning Committee
MERC	Municipal Emergency Response Coordinator
MERO	Municipal Emergency Resource Officer
MFB	Metropolitan Fire Brigade
MFMP	Municipal Fire Management Planning
MFMPC	Municipal Fire Management Planning Committee
MFPC	Municipal Fire Planning Committee
MFPO	Municipal Fire Prevention Officer
OESC	Office of Emergency Service Commission
PPRR	Prevention, Preparedness, Response, Recovery
RSFMPC	Regional Strategic Fire Management Planning Committee
SES	State Emergency Services
SFMPC	State Fire Management Planning Committee
SOPS	Standard Operating Procedures
SMR	Statewide Mobile Radio
TAPO	Technical Admin Support Officer
TOR	Terms of Reference

VFRR	Victoria Fire Risk Register
VICPOL	Victoria Police
WMO	Wildfire Management Overlay
WTP	Water Treatment Plant


Welcome
City of Greater Shepparton
Greater Shepparton recognises traditional owners of this land.