# Bushfire Mitigation Strategy 2019–2023

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Acknowledgement of Traditional Owners

The Nillumbik Shire respectfully acknowledges the Traditional Owners of the land, the Wurundjeri people of the Kulin Nation and pays respect to their Elders, past and present.

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**Message from Council**

**To be developed and included after consultation phase.**

# Contents

# Definitions

**Bushfire mitigation** describes activities to reduce the severity and impact of bushfires. It recognises that while not all bushfires can be prevented, effective planning and preparation can minimise the consequences of these events.

**Green wedge** land is defined under the *Planning and Environment Act 1987* as land outside an Urban Growth Boundary as described in the metropolitan fringe planning scheme[1].

**Interface councils** are the 10 municipalities that form a ring around metropolitan Melbourne, representing 1.6 million residents living in the outer suburbs.

**Bushfire Protection: Exemptions ("10/30 and 10/50 rules")**
Following recommendations by the *2009 Victorian Bushfires Royal Commission*, the Victorian State Government introduced changes to the Victorian Planning Provisions. The changes enable landowners to clear vegetation to create defendable space, around buildings used for accommodation, as well as along existing fence lines.

Coming into effect in November 2011, they were revised in 2014 and in 2018[2]. The provisions allow property owners, in specified locations, to clear vegetation (including trees) without the need to obtain a planning permit from local council.

# Executive Summary

Nillumbik Shire is one of the highest bushfire risk areas in the world. As such, Council has identified bushfire mitigation as a key Council priority.

There are unique challenges within Nillumbik Shire that make bushfire mitigation particularly complex. This includes its natural environment, its location on the urban fringe, proximity to national parks or river frontage with high fuel loads, its demographics including an ageing population, and the large proportion of privately-owned land.

The strategy identifies four strategic priorities, each with a series of associated objectives: mitigating the risk of bushfire; creating a community-centric approach to bushfire; creating a coordinated approach between key agencies and the communities of Nillumbik; and ensuring strong advocacy.

It also identifies four operating principles for bushfire mitigation: protection of human life; balancing environmental protection with bushfire risk; shared responsibility; and reducing, managing and modifying fuels.

The strategic framework set out in this strategy will guide a three-year *Bushfire Mitigation Implementation Plan*, which will appoint responsibility for actions that:

- reduce risk
- increase safety
- fulfil legislative requirements
- promote best practice
- protect environmental assets and values
- empower community; and
- most of all, protect life and property.

Council will oversee this strategy and the associated *Bushfire Mitigation Implementation Plan* through its Municipal Fire Management Planning Committee (MFMPC). This committee is comprised of various agency representatives that have shared ownership and responsibility for the implementation of this strategy.

Like any strategy, this strategy cannot be considered in isolation. It has been developed and will be implemented in conjunction with Council's emergency management documents including but not limited to the *Nillumbik Emergency Management Future Directions Plan* (**Appendix 1**) and the *Nillumbik Green Wedge Management Plan*.

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*'The recommendations we make give priority to protecting human life, and they are designed to reflect the shared responsibility that governments, fire agencies, communities and individuals have for minimising the prospect of a tragedy of this scale ever happening again.'*

*- 2009 Victorian Bushfires Royal Commission.*

# Introduction

This Bushfire Mitigation Strategy 2019–2023 is a major commitment in the *Council Plan 2017–2021*. It highlights the significance of bushfire in the Nillumbik Shire and the need to improve the way we prevent, prepare for, respond to and recover from fire.

The potential for bushfire to impact our lives cannot be underestimated. It has the potential to kill, injure and change our lives forever. Therefore primacy of life must be paramount for us all.

Nillumbik Shire consists of connected, knowledgeable and caring communities that lives in a wonderful rural setting adjacent to suburbia. It enjoys a very stable population and a community that is committed to environmental sustainability. The people of Nillumbik generally understand the risk and threat of bushfire, and fear what it can do to their lives, their community and the place they love and live.

As history has taught us, under certain conditions bushfire can travel quickly through the landscape, causing considerable devastation. The Shire landscape contains vegetation and terrain that allows fire to move with speed, with the potential for death and destruction. This is why the Nillumbik community has significant concern and rightfully demands a comprehensive mitigation strategy that respects their values and delivers improved safety.

Residents of Nillumbik Shire are reasonably well-informed about their rights and obligations in relation to local issues, including bushfire risk. They generally take responsibility for bushfire safety, but also holds others accountable. This highlights the importance of shared responsibility: we must collectively commit to mitigating, preparing for, responding to and recovering from bushfire.

This Strategy guides the next steps in minimising the threat and impacts of bushfire in an area with significant bushfire history. It aims to achieve consistent and effective fire risk mitigation planning and practices through community engagement and a commitment to agency collaboration. This includes knowledge-sharing, and an increase in proactive bushfire related learning and behavior change.

This Strategy will have a high profile to ensure that bushfire mitigation is a shared responsibility between Council, the community, businesses, agencies-NGO, and other levels of government.

# Nillumbik Shire—profile and partnerships

Nillumbik Shire Council is an interface municipality located 25kms north-east of Melbourne's CBD. It has a population of approximately 64,000 residents and a land area of 43,200 hectares. It is characterised by a high proportion of privately-owned land coupled with low population density and low population growth.

The one percent population growth rate of Nillumbik Shire can be attributed to an aging population, stringent state and local government planning laws, minimal high-density housing, and large privately-owned properties.

The majority of the shire (91 per cent) is known as the 'Green Wedge' zone which is home to approximately 13,000 people (one-fifth of the shire's total population). The majority of the land area outside the Green Wedge is zoned Rural Conservation. Planning restrictions in these zones limit what landowners can do on their land to reduce fire risk.

With such a high proportion of private land, a significant portion of which is surrounded by public land (forested areas) and river frontage, it is imperative that Council and agencies work collaboratively with landowners to reduce fire risk.

The total number and aggregate area of privately-owned properties in the designated Bushfire Prone Area and with a Bushfire Management Overlay also create a unique challenge for the shire:

- 97% of land is in the designated Bushfire Prone Area, comprising 17,425 properties or 64% of total properties in the shire
- 82% of land in the designated Bushfire Prone Area has a Bushland Management Overlay, comprising 10,006 properties or 37% of total properties in the shire
- 99.8% of the Green Wedge area includes 4,146 privately-owned properties that are in the designated Bushfire Prone Area.

Living in Nillumbik provides a unique rural lifestyle and experience with central Melbourne attractions and employment only a short distance away. However, the characteristics that make Nillumbik so liveable also contribute to it being one of the most bushfire prone areas in the world. Furthermore, bushfire risk is not confined to the shire area, as neighbouring municipalities also have similar bushfire risk profiles.

Liveability within a bushfire-prone landscape can only be achieved by acknowledging and managing the risk and impacts. Bushfire mitigation is a shared responsibility and will only work if all stakeholders foster strong partnerships with all involved. A community-centric model is needed, which relies on a connected community characterised by mutually respectful relationships, active partnerships, strong leadership and knowledge that guides improved decision-making.

To emphasis the importance the community places on of bushfire mitigation and emergency management, the *2019 Nillumbik Shire Annual Community Survey* shows about one-sixth (14.4%) of survey respondents identified bushfire management and prevention as an issue for Council to address, which was rated second of the top five issues. The survey also identified bushfire and emergency management satisfaction level being 7.09 out of 10, a level of satisfaction categorised as "good".

# Historical management of bushfires

Part of the area north of the Yarra River, which is now identified as the Nillumbik local government area, is home to the Wurundjeri people.

Prior to European contact, the Wurundjeri managed their landscape using techniques now identified as swidden agriculture or rotational farming. This meant the land was cleared using the 'FireStick' method (cool burns) and then left to regenerate for seasons before being farmed again. By using these 'slash and burn' methods to manage the land, the Wurundjeri were able to reduce fuel loads, which resulted in bushfires burning with less ferocity and intensity.

Bushfire occurred naturally within this landscape, such as by lightning strike. Many of the plants and animals found on Wurundjeri land have evolved to survive fire events, and are reliant on bushfire to regenerate. For centuries humans have actively used fire as a land management tool.

We can learn from this historical practice in the way that we manage future bushfire risk in the landscape. The 'FireStick' method of cool burning has a lower impact on life, animals, habitat and landscape than an unplanned, high intensity bushfire, which has the potential to harm humans and animals and destroy property and the environment.

# Council's role and policy context

Bushfire mitigation is a key responsibility for agencies, with legislation providing accountabilities for Nillumbik Shire Council, the Country Fire Authority (CFA), Department of Environment, Land, Water and Planning (DELWP), Parks Victoria, Melbourne Water, Victoria Police, VicRoads and private landowners.

Council has a number of legislated responsibilities relating to bushfire mitigation, prevention, response, relief and recovery. These activities are supported by a shared responsibility approach that includes the community, business and other levels of government.

Council must have an adequate emergency plan to help mitigate the social, economic and environmental impacts of bushfire in Nillumbik, not to mention communities in surrounding municipalities. This is not just a moral responsibility, it is a legislated part of Council's role under the *Country Fire Authority Act 1958,* the *Emergency Management Act 2013,* and the *Emergency Management Legislation Amendment Act 2018*.[3]

The 2009 Victorian Black Saturday bushfires have left a significant scar in the community and across the landscape, which has called for a new approach to bushfire management. Newly adopted Victorian and Australian Emergency Management policies have been adopted and include:

* *Victoria State Emergency Management Priorities*[4]
* *Victorian Bushfire Strategy—Leave and Live approach*[5]
* *Community Resilience framework for Emergency Management*[6]
* *Emergency Management Diversity and Inclusion framework*[7]
* *The national Fire Danger Rating system*
* *Australia Bushfire Policy—'Prepare, Stay and Defend or Leave Early'*.

These new policies are also supported by new technologies and information systems that help community members make better informed decisions about their safety.

# Challenges within the shire

A unique set of social, economic, environmental and technological challenges within Nillumbik Shire make bushfire mitigation particularly complex.

| The community | |
|---|---|
| Aging population | Nillumbik population data profiles[8] indicate that 35.8% of residents are aged over 50 with a higher percentage of retirees, older workers and pre-retirees (50 to 59), seniors and elderly than in Melbourne.<br><br>This means there is a high proportion of potentially vulnerable residents who may be less capable of maintaining their property and reacting to bushfire threat. |
| Extent of privately-owned land | The high level of private land ownership in the shire, with the majority of private land in the designated Bushfire Prone Area (see page 5) poses significant challenge in reducing fire risk.<br><br>Landowners have a responsibility to minimise risk to their own property and surrounding properties.<br><br>Council also needs to work with other agencies to ensure the community is informed about the potential risks of bushfire and the threat of living in a bushfire risk location. |
| 'Treechange' movement | In the future an increasing number of people may move to larger properties for a 'tree change'. These people are unlikely to understand bushfire risks and their obligations as landowners to reduce bushfire risks, nor have the skills or equipment to effectively prepare their property for bushfire. |
| CFA | A continued effort to maintain strong ties between the community and the CFA is vital during all stages of bushfire management. Community-supported and viable CFA volunteer fire brigades are essential. |
| Community expectations from Council | The community expects a higher level of efficiency, transparency and accountability from Council in relation to bushfire management. In response, Council needs to strengthen and streamline its processes and increase its level of engagement with the community. |

| Changes to traditional forms of information gathering | During an emergency, online communication channels such as social media offer an immediacy of information that traditional media such as newspapers and television cannot.<br><br>Council and other agencies need to use these communication channels to provide a primary news source to enable households to be better informed in preparing and enacting their fire survival plans. It remains critical to remember the importance of face-to-face conversations and ongoing information sharing. |
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| Community concerns about bushfire | Living in a bushfire area can be challenging for households. There is a heightened concern for safety, which is sometimes displayed as fear. Trauma from previous bushfires, in particular Black Saturday, can feed into this fear and affect people's decisions and behaviour.<br><br>Therefore, strategies that prevent, mitigate and manage bushfire must be supplemented by programs that build community resilience and wellbeing. |
| **The environment** | |
| Climate change | The effects of climate change will increase the intensity and frequency of bushfires. |
| Rural / urban interface | Nillumbik's 'urban' residential area is predominantly in the southern part of the shire, at the interface with metropolitan Melbourne. High fuel loads near this interface pose a risk of bushfires created by embers travelling into the highly populated urban areas. |
| Fuel load reduction and biodiversity | Fuel load reduction targets on public land including Council land need to be met while also ensuring the region's biodiversity remains intact - something which is highly valued by the community. |
| **The economy** | |
| Business | Businesses need to be considered when implementing bushfire mitigation and emergency management plans. Business continuity is essential to reducing economic and social impacts: the sooner business can resume after a bushfire, the sooner business owners can regain their livelihoods and communities can feel a sense of normality return. |
| Agriculture | Working with large agricultural landowners is critical to mitigating bushfire risk. |

| Visitors and tourism | Communication with visitors to the region, particularly those unfamiliar with the area, should be carefully planned in the lead up to the bushfire season. Visitors need to be informed about the actions they need to take in the event of a bushfire. An increased emphasis on the rebuilding process after a bushfire event also encourages visitors back to the area to support the local economy. |
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| **Technology and infrastructure** | |
| Mobile phone black spots | Mobile phone black spots continue to pose a significant risk in areas of a high bushfire risk. |

# Strategic priorities

Four strategic priorities shape the Bushfire Mitigation Strategy:

1. Reduce the number and impact of bushfire incidents

Improve bushfire mitigation across the municipality through improved prevention, planning and preparedness.

2. Creating a community focussed approach to bushfire

Create and implement a range of effective community engagement and information mediums and sources for use by households and communities so they are able to make better decisions and be better prepared before, during and after a bushfire.

3. Creating a coordinated approach between key agencies and the communities of Nillumbik

Work closely and with clearly defined roles and responsibilities to ensure strong and mutually beneficial relationships are fostered and maintained with all agencies during all stages of bushfire management.

4. Ensuring strong advocacy

The Shire will advocate on behalf of the community to all levels of government to ensure a strong position in relation to bushfire and bushfire risk

The *Bushfire Mitigation Implementation Plan,* managed by the MFMPC is designed to deliver tangible outcomes to improve bushfire safety for each of these strategic priorities.

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*'Nillumbik Shire is one of the most bushfire prone municipalities in Victoria with a history of significant bushfires that have impacted communities, caused death and injury to humans and animals; caused significant destruction of property; displaced individuals and families from their homes and caused catastrophic impacts on wildlife and the natural environment'.*

*- Craig Lapsley, former Victorian Emergency Management Commissioner.*

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# Operating principles

The following operating principles will guide Council's frameworks, plans and actions around risk management and bushfire mitigation within Nillumbik Shire:

## 1. Protection of human life
Council's key operating principle will be, first and foremost, the protection of human life. This includes members of the community who are in immediate danger, but also the broader community and personnel of all associated agencies.

## 2. Balancing environmental protection with bushfire risk
Council will work to strike a balance between working to reducing the threat of bushfire and the impact on private property and businesses and protecting the environment, including the shire's unique flora and fauna.

## 3. Shared responsibility
To succeed in emergency management, the community must be willing to work with Council and associated agencies. Using proven community engagement principles, Council must work to include, learn from and respond to the needs of the community wherever feasible, Shared responsibility includes agencies and government departments, the Council, private landowners and community groups.

## 4. Reducing, managing and modifying fuels
Fire intensity is well researched and a key element of fire behavior that determines the type of fire experienced. When a bushfire has a high fire intensity it will be unpredictable, difficult to control, and will cause significant damage that has the potential to cause death and destruction.

Fire intensity can be reduced by modifying fuel density and fuel configuration. A holistic approach is needed to reduce fuel taking into account the mixture of public and private land in the shire:

- private land that has significant fine fuel vegetation
- Council-owned and managed reserves
- private roads and roads that are owned and managed by the state or Council
- state-owned and managed national parks, forests and bushland
- grasslands
- river frontage bush areas.

These private and public parcels of land are managed separately however they must be considered together to identify the best mitigation and prevention treatments for reducing vegetation.

When the Fire Danger Rating is Extreme and Code Red, weather created by the fire, and ignition locations will be a key determinants of fire behaviour rather than fuel types or dryness. These are the days that fire will move into and through Nillumbik communities leaving destruction in its wake.

# Objectives

Each strategic priority outlined in the table below has been allocated high-level objectives that will guide the three-year *Bushfire Mitigation Implementation Plan*.

Council will oversee this plan through the MFMPC. The MFMPC will develop and implement this plan with the support of Council management and community engagement. The plan will appoint responsibility for actions to increase safety, promote best practice, fulfil legislative requirements, and balance these factors with environmental assets and values, and most of all, protect life and property.

The four strategic priorities will be implemented in conjunction with Council's emergency management documents including the *Nillumbik Emergency Management Future Directions Plan (Appendix 1)* and the *Nillumbik Green Wedge Management Plan* and the state emergency management documents. The strategies, issues and approaches in these documents will inform and align with each another.

| Strategic Priorities | Goals |
|---|---|
| **1. Reduce the number and impact of bushfire incidents** | 1.1 Reduce the number of bushfire ignitions by developing a program to prevent arson in Nillumbik and in areas that may affect Nillumbik, and reduce reckless behaviour that starts bushfires. |
| | 1.2 Support Nillumbik's Electric Line Clearance program to reduce the number of bushfires caused by electric lines in urban areas. |
| | 1.3 Maintain annual roadside slashing, box clearance, woody weeds removal on roads identified in the Municipal Fire Management Plan, and maintain a hazardous tree removal program. |
| | 1.4 Nillumbik Shire to be a 'role model' by providing best practice fuel risk reduction on land they own or manage. |
| | 1.5 Establish and maintain an active indigenous burns program to reduce fuel on private and public land. |
| | 1.6 Establish a three year fuel reduction plan and an annual multi-agency works program to reduce bushfire risk that aligns with Nillumbik's Municipal Fire Management Plan. |
| | 1.7 Support the enhancement of CFA's Community Fireguard program, and promote the 10/30 and 10/50 exemptions to enable households and community groups to carry out strategic fuel reduction and complete bushfire risk mitigation measures on private property. |
| | 1.8 Broaden the membership and range of activities of the Municipal Fire Management Planning Committee. |
| | 1.9 Maintain, manage and enhance the network of static water tanks and fire access roads. |
| | 1.10 Promote the establishment of improved road access and egress and the installation of passing bays. |

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| | 1.11 | Maintain, and conduct a needs analysis of Neighbourhood Safer Places (places of last resort) and consider the establishment of Community Fire Refuges. |
| **2. Creating a community focussed approach to bushfire** | 2.1 | Create an annual promotion program about fuel reduction on private property including information about the 10/30 and 10/50 exemptions, and the provision of improved green waste collection during the Fire Danger Period. |
| | 2.2 | Establish an annual local bushfire mitigation program to reduce vegetation on private property that is supported by neighbourhood green waste collection and education and promotion of the 10/30 and 10/50 provisions. |
| | 2.3 | Conduct a Community Values Forum to capture and describe the main reasons people live in Nillumbik and what is valued and important to them. The outcomes will support decision making by Council and underpin future bushfire plans and actions. |
| | 2.4 | Develop and implement fire intensity information tools linked to fuel reduction for use by the community. |
| | 2.5 | Develop and implement 'environmental' education tools for use by the community taking into account environmental values, vegetation management (including weeds) and methods to protect the environment and achieve improved fire mitigation and environmental outcomes. |
| | 2.6 | Develop Community Emergency / Bushfire Plans for the communities of St Andrews, Strathewen, Panton Hill, Hurstbridge, Christmas Hills, Smiths Gully taking into account the most recent Emergency Management legislation and the *Community Based Emergency Management* framework. |
| | 2.7 | Develop a dynamic consultation and communications approach that includes all mediums and modes of communication to reach the entire community on an ongoing basis. |
| | 2.8 | Provide a content framework and tools for households, families, community groups, businesses, the commercial sector, education and health to enable them to prepare, and make good decision to protect their lives, pets, animals and assets. |
| | 2.9 | Facilitate an annual emergency management volunteer development and resilience program to foster a diverse, inclusive, well lead and agile volunteer workforce that assists the Shire and Emergency Management agencies. |
| **3. Creating a coordinated approach between key agencies and the communities of Nillumbik** | 3.1. | Work with agencies to develop Incident Management Plans for local townships and private properties. |
| | 3.2. | All agency plans are consistent and aligned to the Municipal Emergency Management Plan. |

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| | 3.3. Externally audit the Municipal Fire Management Plan to ensure it is compliant. |
| | 3.4. Collaborative discussions between agencies to manage and plan appropriate bushfire strategies and approaches to an agreed and ongoing communications plan. |
| | 3.5. Participation at MEMPC and MFMPC be a priority and the representative be able to lead, contribute and commit to the issues being discussed. |
| | 3.6. Council will continue to lead the facilitation of fire and emergency management planning at the municipal and local level. |
| | 3.7. Evaluate, assess and update any Memorandum of Understandings for the provision of mutual aid established between key partners including neighbouring municipalities and regional Agencies. |
| **4. Ensuring strong advocacy** | 4.1. Actively advocate to ensure legislation, policy and infrastructure investment meets the needs of the Nillumbik community. |
| | 4.2. Seek increased government and industry funding for the removal of mobile phone black spots. |
| | 4.3. Create evidence based approaches based on performance reporting and an assessment of Bushfire Prevention and Mitigation programs to assist understanding of short, medium and long term outcomes. |

[1] https://www.planning.vic.gov.au/__data/assets/pdf_file/0017/13463/PPN62-Green-Wedge-Planning-Provisions_June-2015.pdf

[2] http://planningschemes.dpcd.vic.gov.au/schemes/vpps/52_12.pdf

[3] http://www.legislation.vic.gov.au/Domino/Web_Notes/LDMS/PubStatbook.nsf/51dea49770555ea6ca256da4001b90cd/857F6CE338E5719ECA2582F0000DFBC9/$FILE/18-036aa%20authorised.pdf

[4] https://www.emv.vic.gov.au/StateStrategicControlPriorities

[5] https://www.emv.vic.gov.au/news/leave-and-live

[6] https://files-em.em.vic.gov.au/public/EMV-web/Community_Reslience%20_Framework.pdf

[7] https://files-em.em.vic.gov.au/public/EMV-web/Emergency-Management-Diversity-and-Inclusion-Framework.pdf

[8] https://profile.id.com.au/nillumbik/service-age-groups?

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# EMERGENCY MANAGEMENT
## Future Directions Plan

*Assessing and addressing the adequacy of emergency management within Nillumbik Shire Council*

Authored by Mr Craig Lapsley
18 April 2019

*'The recommendations we make give priority to protecting human life, and they are designed to reflect the shared responsibility that governments, fire agencies, communities and individuals have for minimising the prospect of a tragedy of this scale ever happening again.'*

*-2009 Victorian Bushfires Royal Commission*

# Contents

# Preface

Community is at the heart of effective emergency management. This means placing all communities at the centre of planning and decision-making, and ensuring that people are our primary focus. This includes not just place-based communities, but also any groups with common values or interests such as faith-based and business communities.

A commitment to 'all communities' in emergency management must be coupled with an 'all emergencies' approach. There are many types of emergencies including fire, flood, storm and heatwave. Emergencies are any significant event that causes loss of life, injury or damage to life or property, or that interferes with daily life[1]. They may be caused by weather events, or may be health, infrastructure or security-related.

The Nillumbik community rightly describes bushfire as the number one risk for the shire. Bushfires are extremely challenging events that are justifiably feared by many in the community—particularly after the tragedy and loss of the 2009 Black Saturday bushfires, which is a recurring theme in emergency management conversations in the shire.

On the advent of the 10th anniversary of the Black Saturday Bushfires, the Nillumbik community still morns the loss of 173 lives and the effects are more far-reaching than we ever imagined. The communities that make up Nillumbik Shire have done exceptionally well but are still rebuilding. While the charred remains of trees, sheds and homes are fading, the scars remain.

We must also acknowledge the men and women who defended homes and property and ultimately saved the lives of more Victorians than can ever be counted.

Bushfire is a real threat to this community and presents a very real management issue that Council must recognise and address. Council must engage and work with the community to adopt and maintain best practice in emergency management.

I present my findings to Mayor, Councillors, the CEO, the Executive team and residents of Nillumbik Shire Council.


- Craig Lapsley

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[1] https://www.emv.vic.gov.au/latest-news/all-communities-all-emergencies

# Executive Summary

Nillumbik Shire Council has commissioned Craig Lapsley, former Emergency Management Commissioner for the State of Victoria, to assess the organisation's existing emergency management arrangements and make recommendations that will help to achieve best practice in the future.

Nillumbik Shire Council is recognised as one of the key Victorian municipalities with a significant emergency risk, particularly bushfire. This is measured by the area's vegetation, topography, climate and demography. The localities and districts including North Warrandyte, Research, the Plenty Gorge, Christmas Hills, St Andrews, Panton Hill and Hurstbridge are areas of particularly high risk due to limited access and egress, coupled with high concentrations of population.

The *Emergency Management 2019 Future Directions Plan* considers Council's current emergency management policies and procedures, and the capacity and capability of its emergency management workforce. It outlines the new requirements set out in forthcoming state emergency management legislation (due for introduction in 2020), and best practices in community resilience, community decision-making, community development and volunteer programs.

While emergency management is a key part of Council's role, it is also a shared responsibility. This plan provides recommendations for a long-term, sustainable emergency management program that will be implemented in partnership with the community, other agencies and other levels of government.

The *Emergency Management Future Directions Plan* will be presented to Council and should be viewed in conjunction with the *Bushfire Mitigation Strategy* and the *Green Wedge Management Plan*. These are both strategic documents of importance and have significant alignment with each other to achieve a balanced and integrated approach between environmental and bushfire issues.

Council's Municipal Emergency Management Plan and numerous other plans, policies and procedures are currently compliant with legislation and Council requirements. These plans will continue to operate and serve the needs of the Nillumbik community and Council.

# About Nillumbik Shire

The Shire of Nillumbik is a Green Wedge municipality located 20kms north east from Melbourne's CBD. The Yarra River forms the shire's southern boundary in Warrandyte and Bend of Isles, reaching up to the Yarra Valley escarpment in the east. Yan Yean Road runs the length of the western boundary meeting the Kinglake National Park in the north.

The shire has a population of over 64,000 residents who live in suburban settings; small, close -knit townships; and vast rural properties spanning hundreds of hectares.

The people of Nillumbik enjoy an enviable lifestyle: there are views of rolling hills and blue-tinged mountains and residents are a hop, skip and jump away from wineries, restaurants, cafes and boutique producers, all while enjoying the modern conveniences of living near a large city.

Ninety-one per cent of Nillumbik's total land area is designated in the Green Wedge Zone. In land use terms this means firm restrictions on the density and level of development allowed within this zone. These restrictions mean that the character and liveability of the shire are not at risk from inappropriate development and urbanisation. On the flip side, a consequence of stringent planning laws can mean a heightened bushfire risk, poorly accessible properties and often 'one road in and one road out' to communities and townships.

The Nillumbik Green Wedge supports a diverse range of species and their habitats, and is home to 1,000 indigenous flora species, 64 of which are listed significant species. This illustrates the complexity of planning sustainable programs that balance environment, economic and social issues. It is made even more complex when considering emergency management, community resilience and bushfire mitigation.

There is a significant history of bushfires in the Nillumbik Shire. In particular, the 2009 Victoria Black Saturday Bushfires caused death, injury, destruction and displacement, severely impacting the community's mental health and wellbeing.

Fire is an all-consuming experience and has long-term impacts. Despite the level of bushfire risk in Nillumbik Shire, residents are committed to living in the region and being part of their community. The challenge is balancing what they value most about living in Nillumbik with the very real need to stay safe from the threat of bushfire.

# Stakeholders and the community engagement process

The consultation process for this document included speaking to Nillumbik Councillors, Nillumbik Shire Council's Executive Management Team, Council officers, and community members and agency representatives who made submissions to Council's draft Bushfire Mitigation Strategy. This resulted in over 40 individuals providing input into the challenges and opportunities of emergency management in the shire, particularly bushfire.

A progress report was submitted to the Nillumbik Shire Council Municipal Emergency Management Committee in December 2018. This provided an overview of the issues, which have been included in this plan and the attached action plan.

# Challenges and considerations

Fires are impacting communities on a grand scale, with major fires occurring more often and with greater intensity. This is a reality for the Nillumbik community due to its unique environmental landscape. The key challenges to consider include:

- guiding the community to take ownership of the risks that are an inevitable part of living in Nilllumbik Shire

- improving community understanding and knowledge about emergencies

- working with the community's ability to react in an emergency, and for agencies to support those who live in high risk areas

- supporting higher numbers of residents who are vulnerable or not adequately prepared for an emergency due to an ageing population and the growing 'treechange' movement

- increased urbanisation, resulting in more densely populated urban areas and a larger urban interface

- more frequent, more intense weather events that increase fire danger, such as drought, wind storms and extreme heat due to climate change. This raises the potential for loss of life and impacts on families, communities, the economy and the environment

- the need to better understand and manage biodiversity and environmental issues including smoke, water and health

- restrictions to large-scale planned burning operations due to land use and ownership rules

- decreased planned burning of forests due to environmental policy, climate and weather patterns

- the need for heat and fire resistant building design, particularly for properties adjacent to bushland

- ensuring government policy and emergency management agencies are quick to adapt and work together in a changing environment

- changing fuels and fire loads, which require new methods and approaches for fuel reduction

- land use and building design that considers all phases of emergency management, from prevention and preparedness to response and recovery.

If we are to reduce the intensity and impact of fires in Nillumbik Shire, we need be agile and strategic in our approach to emergency management. The journey has commenced, but there is more to be done. It's time to think strategically, develop new approaches and take action at the community level.

# 1. Emergency management and bushfire policy setting

The emergency management policy setting is experiencing a new norm, with heatwaves and major bushfires affecting communities more frequently and over extended periods.

Over the last decade, significant weather events across the world have been more intense and more frequent, with long-term, catastrophic consequences.

The effects of climate change are now being felt in Victoria, with fires burning more aggressively and intensely at a time of year that has been considered to be 'out of season.' As a result, fire seasons are getting longer.

There could not be a more important time to develop a strategic approach to emergency management in Nillumbik Shire.

## 1.1. National and state emergency management and bushfire policy

A number of federal and state government policies set the overarching governance arrangements and strategic direction for bushfire and emergency management. These are important and have all been developed or modified since the *2009 Victorian Black Saturday Bushfires Royal Commission* and the 2010/11 Victorian Floods.

It is important that the latest, evidence-based policy and strategic approaches guide discussions and decision-making for all emergencies in Nillumbik Shire, particularly bushfire.

## 1.2. State Emergency Management Priorities

The State Emergency Management Priorities provide clear direction on the factors that must be considered and actioned during any emergency.

The priorities focus on the primacy of life and the issuing of community warnings and information to help people make informed decisions about their safety. They include the protection of property, economies and the environment.

During a difficult and evolving emergency, the priorities provide emergency management personnel with a decision-making framework that can translate into immediate action to protect the community and help mitigate the potential consequences of the emergency.

The priorities are:

1.      Protection and preservation of life is paramount including:

      i.      Safety of emergency services personnel; and

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

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

3.      Protection of critical infrastructure and community assets that support community resilience.

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

5.  Protection of assets that support individual livelihoods and economic production that supports individual and community financial sustainability.

6.  Protection of environmental and conservation assets that consider the cultural, biodiversity and social values of the environment.

## 1.3.  Objectives for bushfire management on public land

To supplement the State Emergency Management Priorities, two primary objectives for bushfire management on public land in Victoria have been established:

1.  Minimise the impact of major bushfires on human life, communities, essential and community infrastructure, industries, the economy and the environment. Human life must be afforded priority over all other considerations.

2.  Maintain or improve the resilience of natural ecosystems and their ability to deliver services such as biodiversity, water, carbon storage and forest products.

These two objectives are published in the *Code of Practice for Bushfire Management on Public Land, Forest Fire Management Victoria.[2]*

## 1.4.  Fire Danger Rating (FDR) national system

Many Australians will be familiar with 'fire weather'—those hot, windy days when the atmosphere feels like the inside of a hot oven.

The Fire Danger Rating (FDR) system is derived from the:

*   Grassland Fire Danger Index (GFDI), which is used by rural fire authorities across Australia to generate fire danger ratings for grassland areas.

*   the Forest Fire Danger Index (FFDI), which was developed in the 1960s to rate fire weather. The FFDI measures temperature, relative humidity, wind speed and, to estimate the drought factor, rainfall.

These two systems are used to calculate the Fire Danger Rating (FDR) for the community. A new FDR system was developed after the Victorian 2009 Black Saturday fires with the CSIRO analysis showing that 50 per cent of deaths in bushfires happened on days when the FFDI was over 50 — putting them in the 'severe' or 'extreme' range of the new FDR system.

On Black Saturday, the FFDI reached 155, the highest rating recorded for a major bushfire. The data showed just what the FFDI meant for saving lives. On days where the FFDI was over 100, 75 per cent of people died in buildings, however at lower FFDIs people tended to die when caught outside defending property or trying to flee as the fire approached.

The new FDR system has a new FFDI category: Catastrophic / CODE RED, when the FFDI is over 100. The advice is clear on Catastrophic / CODE RED fire danger days: if you live in a bushfire-prone

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[2] Dept of Sustainability and Environment (2012). Code of Practice for Bushfire Management on Public Land. Retrieved from Forest Fire Victoria: https://www.ffm.vic.gov.au/__data/assets/pdf_file/0006/21300/Code-of-Practice-for-Bushfire-Management-on-Public-Land.pdf

area, the safest option is to leave the night before, or early in the morning. Do not wait and see what happens.



FIRE DANGER RATING

## 1.5.  Former Australian bushfire policy: 'Stay or Go'

From the 1980s up until the *2009 Bushfires Royal Commission* (Royal Commission), public advice on what to do when a bushfire threatened followed the 'Stay or Go' slogan, more accurately described as 'Prepare, Stay and Defend, or Leave Early' policy.

The Australasian Fire and Emergency Services Authorities Council formally adopted the 'Stay or Go' policy in 2005. It was based on data showing that since the mid-1950s, the largest proportion—a quarter—of people had died evacuating late in the face of an oncoming fire, closely followed by those defending their property outside the house. Only 14 per cent were inside a defendable property. The many studies concluded that well-prepared houses could be successfully defended and were a safe refuge from the fire front. However, Black Saturday threw that policy on its head.

Nearly 70 per cent of the people who died on Black Saturday were sheltering 'passively' in their home or a nearby structure. More than a quarter died sheltering in a bathroom or laundry. A survey of 600 residents who survived the Black Saturday fires found that only 5 per cent had sheltered in their house. Thus, the 'Leave and Live' policy was introduced post the 2009 Victorian Bushfires.

## 1.6.  Victoria's current Bushfire Safety Policy Framework: 'Leave and Live'

The Royal Commission concluded that a 'Stay and Defend' strategy was still a valid option in a bushfire, but only under limited circumstances. This means taking account of fire intensity, how defendable the home is, having good fire-fighting equipment and how mentally and physically fit the residents are.

*'[Stay and defend] should be attempted only by people who understand and accept the risks — including the risk of death.'*

- *2009 Victorian Bushfires Royal Commission*

The *Victorian Bushfire Safety Policy Framework 2014* had the tag line 'Leave and Live', which represents the call to action. The framework is based on recommendations from the Royal

Commission and research findings. It recognises that fire conditions and the way people respond to fire vary, but that leaving early remains the safest option. 'Leave and Live' is actually the alternative to 'Wait and See,' which is the approach that has historically led to most bushfire deaths, as people leave late and are caught on the roads or trapped in homes that cannot be defended.

Since the 2009 Victorian bushfires, significant research has been undertaken in Victoria and elsewhere in Australia into how people plan to respond to the threat of bushfire and what they actually do. This research was undertaken directly by both state and federal levels of government and through the Bushfire Cooperative Research Centre.

**The findings have been remarkably consistent: only a small proportion of people actually make plans for what to do in the event of a bushfire. An even smaller proportion stick to their plans.**

If you choose to stay with your property and your community, then you must accept the consequences that may follow. There are always options and choices to be made, but they must be made early and must be the safest for you and your family under the circumstances. The longer you leave it, the harder it is. At a point in time, it becomes too late to leave and puts you more at risk.

It is important for Victorians to have the conversation—with family, friends, neighbours, and their local fire brigade—about what they are going to do when a bushfire threatens and how to action their plan. That conversation needs to occur regularly and long before the flames appear. For many, the conversation will lead to the conclusion that leaving is the safest option. That means having somewhere that is safe and practical to go and the means to get there.

Choosing to stay when fire comes depends on whether a person is physically and emotionally capable of surviving the ordeal, whether the building they will stay and actively defend is suitable, whether they have equipment and water up to the job.

Fundamentally, there are still only two options: you either leave or stay. While leaving early is not always easy to do, it remains the safest option. For those who do not have adequate bushfire survival plans, it is the only option. Leaving early will be inconvenient on many levels for individuals and the broader community, but so is dying needlessly.

## 1.7.    Bushfire fatalities—1901 to 2011

825 people lost their lives in more than 260 bushfires between 1901 and 2011 (110 years). Of those killed:

- 92 were firefighters
- more than 80 per cent of the deaths were in January and February
- 65 per cent were killed on nine major bushfire days
- the majority were in Victoria.[3]

**Total bushfire fatalities by state between 1901 and 2011**

Victoria has the highest bushfire fatality rate, with 506 deaths over the 110 years.

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[3] [3] *Life and house loss database description and analysis Final report*, December 2012 – Published by CSIRO
http://www.bushfirecrc.com/resources/research-report/life-and-house-loss-database-description-and-analysis

| Total bushfire fatalities by state | |
|---|---|
| *Australian Capital Territory* | 5 |
| *Western Australia* | 20 |
| *Queensland* | 25 |
| *South Australia* | 57 |
| *Tasmania* | 68 |
| *New South Wales* | 139 |
| *Victoria* | 506 |
| *Total* | **825 deaths[4]** |

**Bushfire fatalities on nine major bushfire days**

• 475 bushfire fatalities occurred over the nine major bushfire days across three states.
• Victoria had fatalities on eight of the nine days, with 7 February 2009 (the Victorian Black Saturday Bushfires) being the worst, with 173 deaths.

| Bushfire fatalities on nine major bushfire days | | |
|---|---|---|
| *14 February 1926* | Victoria | 31 |
| *10 January 1939* | Victoria | 19 |
| *13 January 1939* | Victoria | 47 |
| *14 January 1944* | Victoria | 35 |
| *14 February 1944* | Victoria | 13 |
| *07 February 1967* | Tasmania | 64 |
| *08 January 1969* | Victoria | 20 |
| *16 February 1983* | South Australia | 27 |
| *16 February 1983* | Victoria | 46 |
| *07 February 2009* | Victoria | 173 |
| *Total* | | **475 deaths** |

**Location of deaths—bushfire**

The closer your home is to the bush, the more at risk you are. Over 110 years of deaths due to bushfire, a Life Loss database analysis found that:

• **50% happened within 10 metres of a forest**
• **78% happened within 30 metres of a forest**
• **85% happened within 100 metres of a forest.[5]**

The definition of a forest is bushland covering more than 0.2 hectares—that's about the size of four house blocks.

Houses on slopes are at particularly high risk during bushfires because fire travels faster uphill and extends to anyone living close to bush or grasslands.

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[4] http://www.bushfirecrc.com/sites/default/files/managed/resource/life_house_loss_report_final_0.pdf
[5] *Life and house loss database description and analysis Final report*, December 2012 – Published by CSIRO
http://www.bushfirecrc.com/resources/research-report/life-and-house-loss-database-description-and-analysis

Buildings closest to the bushland interface were most at risk. Anyone living within 500 metres of the bush should be aware of the risk and how to prepare for it, though properties have been lost further than 500 metres from bushland.

# 2. Council's capability and capacity

Currently resourcing for emergency management resides in the Emergency Management team and the Operations and Infrastructure teams. The teams are small in size compared to councils with similar risks and complexities.

Although this structure provides for a multi-disciplined approach and has served Council well in the past, the likely increase of natural emergencies due to climate change will require a further resource commitment by Council in the near future.

The Council has well established policies, procedures and guidelines that support the required activities of emergency management. The challenge is to ensure these remain current and continue to reflect the needs of the Nillumbik community in response to the risks that they face.

Capability and capacity is a key theme contained in the 2018 Nillumbik Shire Council Emergency Management internal audit. This ongoing audit focuses on the adequacy and effectiveness of Council's emergency management processes and controls, and was last submitted to the administration in November 2018. It will guide the administration during 2019.

This *Future Directions Plan* will guide the outcomes of the above audit. It does not intend to duplicate the audit's actions—it will complement and strengthen this work.

## 2.1 Current emergency management policies, procedures and guidelines

Policies and procedures at Nillumbik Shire Council are detailed within the Emergency Management Operational Procedures. While these are somewhat relevant and remain active, the onus of activation and management resides with only a few.

As a result, escalation is not guaranteed and could vary depending on the time of day, week or year. Similarly it is a reality that many Council employees are also Nillumbik residents and can be involved in the emergency themselves, and their family, property and assets may be impacted. History has shown, however, that in an emergency Council employees are quick to respond and assist.

Council has proven to be a strong leader and participant in the Regional Emergency Management Collaboration. This provides access to resources from outside the shire and is an excellent strategy to build and supplement Council's capability and capacity. The benefits are significant.

## 2.2 Council's emergency management workforce

The Executive Manager of Governance and Legal Services leads council's emergency management team. The emergency management team comprises two Full Time Equivalent (FTE) employees and a third role is currently accessed through state government funding, however that funding is not ongoing at this time.

To supplement these three roles, other emergency management positions include the Municipal Emergency Response Officer (MERO) and the Municipal Fire Prevention Officer (MFPO). These roles are legislated and their functions are included in position descriptions. The position of Municipal Recovery Manager (MRM) is not legislated but is included in an existing role's position description, and like the MERO and MFPO, it takes a lead role during an emergency. The MRM has an appointed

a deputy and the MERO has five appointed deputies to provide the necessary coverage as detailed in the operational procedures.

Thirty Nillumbik employees are trained in emergency management operational functions as per the Operational Procedures. These individuals are sourced from various departments and participation is voluntary and additional to their existing roles and responsibilities. Once engaged, staff are rewarded through the normal employment provisions and arrangements.

Emergency management has a broad range of legislated and non-legislated activities and functions. As such, all functional areas of Council's executive management structure should have responsibility for emergency management. This whole-of-Council approach will strategically position and resource emergency management across the organisation. Key emergency risks such as extreme heat and bushfires need to be placed as core functions within the Council's structure, with an emphasis on all phases of an emergency (before, during and after).

The current 30 trained personnel is a minimum: Council needs to consider increasing this, incorporating their functions into position descriptions, and resourcing these functions as part of each key service area (instead of the voluntary approach outlined above). The voluntary approach can then be used to supplement core capability.

The resourcing and distribution of responsibilities for emergency management will require further analysis by Council's Executive and Management Team. It will need to address Council's legislative, policy and procedural requirements, for (planning, mitigation, preparedness, response, relief and recovery). It will need to identify the broad range of emergency management functions across the following areas:

- Community Development
- Community Design—Land Use Planning, Building Planning, Building Approval
- Emergency Management Planning
- Emergency Community and Resilience Planning
- Risk Mitigation
- Fire Prevention
- Environmental Management
- Emergency Management Response Coordination
- Emergency Relief and Recovery
- Performance and Monitoring
- Communications
- Community Service Programs (early children, aged care, meals on wheels etc)
- Business Continuity
- Community Advocacy and Leadership
- Emergency Management community funding grants and opportunities
- Emergency Management governance and committee leadership.

As the closest and most connected level of government to the community, Council will always be a broker in the achievement of good community-based emergency management. However, emergency management is not the sole responsibility of Council: many partners, agencies and government departments also have legislative responsibilities. As such, the broad range of emergency management activities must also be facilitated and supported by Council's partnership with others.

## 2.3    Performance monitoring and management

There is room for improvement in Council's performance monitoring, measurement and reporting of emergency management. By making improvements in this area, Council can better measure the value, efficiency and effectiveness of its emergency management programs. This includes its financial

investment in emergency management: this currently has limited performance reporting, making it difficult to ensure that adequate financial resources are being invested to achieve the best outcome for the community.

## 2.4 Business continuity

Continuity of Council's business activity is a key aspect of managing an emergency in the Shire, and an important factor in community resilience. By planning for business continuity, Council can minimise disruption to its services and activities, and in turn the impact on the community.

To achieve business continuity during and after an emergency, Council must take an integrated approach. This means understanding the potential impacts on 'business as usual' activities caused by an emergency, and the shuffling of resources both inside and outside the organisation—during and after an emergency—to ensure that everyday activities can continue with minimal disruption. Council must be committed to ensuring that business continuity is maintained and that systems are in place to integrate, as far as possible, efforts around the recovery into normal business practice.

This approach is detailed in the Emergency Delivery Model below:

**Mitigation**
Efforts to reduce the effects or risk associated with hazards

**Recovery**
Actions taken after an emergency to restore and resume normal operations

**Continuity**
Actions taken to protect Council from distruption. Continuty influences all four planning phases of Emergency Management.

**Preparedness**
Actions taken prior to an emergnecy to facilitate response and promoite readiness

**Response**
Actions taken during an emergnecy to save lives, property and the environment

Emergency Delivery Model

During and after an emergency, Council may need to draw on resources outside the organisation to ensure continuity of services to the community. This is achieved through a shared responsibility approach to emergency management, with the community, business and other agencies. It engages

established, trusted networks to help minimise disruption—for example, with the help of community involvement in the relief/recovery process. This model ensures emergency management is not isolated to one organisation, but integrated into the everyday business of the shire.

## 2.5    Relationship-building models

Relationships between communities, agencies and local government are fundamental to good emergency management. By developing positive, productive relationships and establishing trust, partnerships can be formed between agencies, communities and trusted networks to support community resilience and achieve community goals.

Relationships can become complex when faced with the stresses of an emergency, however they are a critical success factor in dealing with emergency situations. When relationships are strong, much can be achieved through trust and goodwill. That is why it is so important to develop relationships in peacetime. This requires an investment of time, energy and commitment.

**Relationships alone won't achieve everything however they will build the trust that actions and achievement are built upon.**

Local government is the closest level of government to the community and needs to have well developed, respectful relationships to support mature discussion on many issues. There are many different relationship models and Council must develop one that works for the organisation and the community. However there is a set of principles that should guide any relationship model:

•       respect, trust and integrity

•       listening and connecting

•       being inclusive, involved and supportive

•       strive for balanced outcomes

•       collaborate and share intelligence

•       communicate and share information.

These principles must be supported by well-established processes and organisational commitment. The relationship model should also guide and have synergy with stakeholder management and communication arrangements.

Community expectations around 'just in time' communication and engagement before, during and after an emergency are increasing. This provides an opportunity for Council to renew some well-established communication and engagement processes.

As part of its relationship model, Council needs to develop a new communications approach that supplements current activities. It should include face-to-face, group discussion and virtual connection. Social media platforms must also be included as a key way to engage the broader community.

To develop an inclusive relationship model, Council must look at community participation, leadership, partnerships and advocacy. The model must support strong connections and leadership with all stakeholders. It must be outcome-focused and aligned to Council's strategic direction.

# 3.    Best practice model for community engagement

## 3.1    The new way forward—new emergency management planning legislation

Newly slated Victorian emergency management legislation, proposed for introduction in 2020, provides a modern and best practice approach to emergency management planning. This is an excellent opportunity to modernise emergency management in Nillumbik Shire.

The new legislation provides Ministerial directions and a framework for emergency management at a state, regional and municipal level. The consultation process to develop the new legislation has been extensive and has captured municipal issues and new approaches.

It reinforces the need for emergency management plans to follow a 'joined up' or collaborative approach between agencies for all types of emergencies. This includes floods, fires, heatwaves, energy and communications failures, health pandemics, and animal and plant diseases.

### 3.1.1 Regional, Municipal and Community Emergency Management Plans

Under section 20 of the current *Emergency Management Act 1986* (the Act), a Municipal Emergency Management Plan (MEMP) must be considered and approved by Council. This means it is regarded as the Council's plan. Under section 21 of the Act, Council must appoint a Municipal Emergency Management Planning Committee to prepare the MEMP for Council's consideration. The committee must be drawn from the Council, response and recovery agencies, and local community groups.

The Emergency Management Manual Victoria provides guidance on MEMPC arrangements, including their composition. However, under the current Act there is no obligation for other agencies to participate in the MEMP planning process. This means that, in practice, councils have found it difficult to secure their participation.

The new legislation promotes shared responsibility between agencies for emergency management planning. It will require specified agencies to be represented on the MEMPC, and all members will be jointly accountable for preparing the plan. This will ensure that all relevant agencies contribute their expertise to municipal emergency management planning. While this is a shared responsibility, councils should continue to have a lead role in the planning process and in bringing key stakeholders together for this purpose.

There is flexibility around who from the community can participate in the MEMPC—this can be either an individual community member and/or representatives from community organisations. Representatives from other government or non-government agencies can also be included. This affords flexibility to frame the membership of a MEMPC in light of the needs and risks at the community level.

New Regional Emergency Management Plans (REMPs) will inform the development of the MEMPs. Similar to the MEMPCS, they will be developed by Regional Emergency Management Planning Committees (REMPCs). Similar to the MEMPCs, members of these committees will have joint accountability for developing their plan. Regional level planning provides a crucial link between state and municipal arrangements, and will be tailored to the risks and needs in each regional geographic footprint.

This new approach makes emergency management planning the collective responsibility of each regional and municipal committee. Emergency management plans will belong to each committee,

rather than being 'owned' by any one agency. Individual agencies will continue to retain their own responsibilities to perform specific roles under the emergency management plans.

As the municipal level of planning is the closest to communities, the new MEMPs will continue to provide a flexible tool to address the risks and needs of each municipality. Once developed, the MEMP will then inform the development of Community Emergency Management Plans (CEMPs) for each community or a section of the community, such as specific towns or localities.

The new framework follows an integrated approach to planning at the local, municipal and regional level. It will help to identify and address any gaps and promote greater collaboration between those involved in the planning process. It will ensure the plans are consistent, informing and aligning with one another for a consistent approach to each stage of emergency management. It also establishes core requirements for consultation when preparing an emergency management plan.

### 3.1.2 Planning for all stages of emergency management

The new legislation reinforces the importance of planning for activities that occur at all stages of emergency management. Historically, emergency management planning often focused on arrangements to combat an emergency while it is happening, such as a bushfire. While this is important, it is only one facet of modern emergency management.

The contemporary approach to emergency management recognises that effective planning must encompass the activities that occur before, during and after an emergency. This includes activities to prevent or mitigate emergencies, reducing their likelihood and consequences for the community.

In the new legislation, the term 'prevention' is replaced with the term 'mitigation'. It is used to capture both mitigation and prevention activities. It better reflects the current understanding that not all emergencies can be prevented, and that our efforts need to be focused on minimising their impacts. For example, heat events or heatwaves pose a significant risk to the community. While a heat event cannot be prevented, effective planning is critical to reduce the consequences of these events.

The new legislation creates an express obligation to plan for emergency mitigation as part of Victoria's overarching emergency management arrangements. In particular, mitigation activities will inform the development of REMPs, to plan for emergencies at the regional level.

**Summary of new emergency management arrangements**

New Municipal Emergency Management Planning Committee
The MEMPCs are comprised of representatives from:

- the Council, namely a senior officer
- fire and ambulance services, police, and the Victoria State Emergency Service
- agencies with a role in recovery at the municipal level
- community representatives.

New Municipal Emergency Management Plan
New provisions set out the core matters that an emergency management plan must contain. These include:

- the mitigation of emergencies
- the response to emergencies
- the recovery from emergencies
- the roles and responsibilities of agencies in relation to emergency management.

Community Emergency Management Plans
CEMPs are prepared by the community for a specific town, locality or section of the community. They will be an attachment to the MEMP and replace the current Community Information Guides (previously known as Township Protection Plans), Local Flood Guides, St Andrews Conversation, and Plenty Gorge Emergency Plan.

New Municipal Emergency Management Officer
The Municipal Emergency Resource Officer (MERO) role will be replaced with a Municipal Emergency Management Officer (MEMO). Under section 21 of the Act, the MERO is appointed by Council and coordinates municipal resources used in emergencies. This role is outdated, and reflects a time when a Council's key role was to provide Council-owned assets, staff and equipment for emergency response. In practice, the role of councils has now shifted to the coordination of a range of activities at the municipal level, particularly relief and recovery efforts.

The new MEMO will be responsible for liaising with agencies and coordinating emergency management activities in his or her municipality. The primary focus is on coordination, which will vary across each phase of emergency management. For example, during the response phase, the MEMO will coordinate Council activities that help deal with the emergency. During the emergency recovery phase, he or she will have a broad, cross-agency focus, consistent with each Council's wider role in emergency recovery.

## 3.2     Existing best practice in Nillumbik Shire

There have been several examples of best practice emergency management initiatives in Nillumbik Shire that started off as ad hoc and have proven to be positive and successful.

These local initiatives include St Andrews conversation, Strathewen School Program, The Shire Tank Program (a partnership between CFA & Shire), Fire Danger Rating (FDR) advertising and use of variable message boards (VMB), 2009 Bushfire Community Recovery Committees and The Plenty Gorge Emergency Plan.

Other initiatives that exist in other municipalities and could be easily adopted or transferred to Nillumbik Shire Council are The Surf Coast Shire Weeds Program and the Monbulk Community Emergency Management Plan (Yarra Ranges).

## 3.3     Community resilience, diversity and inclusion

More frequent and intense extreme weather and climate related events, as well as changes in average climate conditions, are expected to continue to damage infrastructure, ecosystems, and social systems that provide essential services and benefits to the community. Building community resilience is key to managing and recovering from these events.

Emergencies can be seen to impact upon communities in two fundamental ways: through chronic stresses and acute shocks. These provide a basis for building resilience in the emergency context:

**Chronic stresses:** stresses weaken the fabric of systems on a daily or cyclical basis and include mental health, unemployment, poverty, drug and alcohol use, domestic and family violence, public safety, and climate change.

**Acute shocks:** sudden, sharp events that threaten a community or system, including extreme heat events; natural disasters such as bushfire, storms and flood; extremist acts against the community; and community health disease.

Resilience in a community context is about connecting and working with communities to build their collective capacity and capability to better manage chronic stresses, while better preparing to anticipate, cope with and recover from acute shock born out of an emergency.

To support the fundamentals of stress and shock, there are seven primary resilience characteristics of people and communities. These characteristics are indicators of how well an individual, family unit, neighbourhood or community will plan for, respond to and recover from an emergency:

- Connected, inclusive and empowered
- Safe and well
- Reflective and aware
- Culturally rich and vibrant
- Democratic, engaged and informed
- Sustainable built and natural environments
- Resourceful, dynamic and diverse local economy.

To achieve resilience, it is important to align efforts with other community programs and approaches including community development, public safety, emergency management, primary health, mental health, public health, animal health, land usage, ecosystems, biodiversity and environmental health.

Resilient communities also share the importance of social support systems, such as neighbourhoods and family networks, social cohesion, mutual interest groups, and mutual self-help groups.

A resilient community is also a diverse and inclusive one. Communities are diverse with people identifying themselves against a range of different identifiers such as gender and race. Understanding and being inclusive of this diversity will build the strength of the community and develop a shared capability that is critical in an emergency.

The Victorian Government has developed new, community-centric approaches to emergency management. These include the Community Resilience and Diversity and Inclusion frameworks developed by Emergency Management Victoria.[6] Although these are not new concepts, the frameworks provide a fundamental set of principles to guide community-based emergency management, and a useful method for building better community engagement.

The current MEMP includes a resilience model called 'A Resilient Nillumbik', which encompasses both community and organisational resilience. This is an important model, but it could be enhanced by following the above frameworks.

## 3.4    Community decision-making and governance structure

Community governance structures are critical for community affected by an emergency. They support local decision-making, support community involvement in recovery efforts, and provide a means through which information, resources and services to be coordinated. The community should have a choice as to the type of structure that will suit their needs. Options are:

- Community Recovery Committee
- Community Resilience Committee
- An independent incorporated association
- A community reference group.

The advantages of a local decision-making structure include:

- Ensure the recovery process is local and community-focused
- Recognising the common interests of members of the affected community
- Ensuring the equitable application of resources and services
- Establishing a mechanism to identify and prioritise community needs
- Overall monitoring of the recovery process
- Providing a means for identifying needs which cannot be met from within the community and which require additional resources.

It is important to acknowledge that the structure may emerge spontaneously as a result of local leadership. Experience highlights the importance of resourcing community recovery or resilience committees with an appropriate level of administrative, liaison or engagement support over an extended period of time. Technical support in the form of facilitators may also be required.

If an emergency affects different parts of the shire, decision-making structures for each of the affected areas may need to be established and adequately resourced (possibly through a place-based management approach). Establishing these support links early will have a profound effect on long-term partnerships between communities and agencies.

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[6] https://www.emv.vic.gov.au/CommunityResilienceFramework and https://www.emv.vic.gov.au/DiversityAndInclusion

A Community Recovery Committee (CRC) is outlined in Council's current MEMP. It builds on the 2009 Nillumbik Bushfire Community Recovery Committee experience and provides an excellent framework for recovery committees to be activated and successful in Nillumbik Shire.

## 3.5    Community development

Nillumbik Shire Council is a significant leader in community development and should integrate emergency management into its community development activities.

Community development plays an important role in community recovery from an emergency. It supports community-led recovery models, where the community is given the tools and the freedom to develop their own approach, thereby building on their resilience.

Research and experience shows that as long as communities are supported with information and resources, they are able to support and manage their own recovery better. This in itself is fundamental to building resilience.

A community development approach that meets both individual and community needs is essential to the relief and recovery process. Key aspects of community development include:

- Community development—empower the community to achieve
- Community connection—connection through all mediums to share ideas
- Community engagement—activities to gain a better common good
- Community capability—increase knowledge and improve skills
- Community planning—a systematic approach for the local community

Community development personnel and programs are relied upon as an important link within the community and across agencies. They provide support mechanisms that allow people to be involved in recovery activities.

## 3.6    Volunteer emergency management agencies

To truly appreciate the hidden value of volunteers, one must understand the differences and linkages between volunteers, volunteering and volunteerism (the '3Vs'):

- **Volunteers:** the dedicated people who do the work in local communities before, during and after emergencies.
- **Volunteering:** the activity itself; the work that volunteers do before, during and after emergencies.
- **Volunteerism:** the culture within organisations and the culture within the community.

The value of volunteers and volunteering is often viewed in isolation, and there is insufficient emphasis on the value of volunteerism. The three are intrinsically linked.

In the emergency management sector in particular, the culture and spirit of volunteerism is extremely valuable. It extends much further than the formal output of services rendered, and continues beyond rostered duty.

Volunteers provide immense value before, during and after emergencies. They train, educate and prepare communities; provide front line response; coordinate resources; and deliver relief and recovery services and critical psycho-social support after an emergency.

There has been little concerted effort to capture the value exchange that occurs between a volunteer and the recipients of their efforts, nor to quantify the importance of volunteerism in building a sense of

community. Indeed, the 3Vs provide immense support in building organisational and community resilience. However this value is currently only narrowly defined and understood.

# 4.    Recommendations

After extensive consultation with the Nillumbik community, Nillumbik Shire Council and its Executive, I have reached the following recommendations.

| Recommendation 1—Emergency management policies |
|---|
| That Council adopts the Victorian and Australian emergency management policies to ensure the latest, evidence-based policy and strategic approaches are guiding discussions and decision-making for all emergencies.<br><br>Victorian policies:<br><br>• Victoria State Emergency Management Priorities<br>• Victorian Bushfire Strategy—Leave and Live approach<br>• Community Resilience Framework for Emergency Management<br>• Emergency Management Diversity and Inclusion Framework.<br><br>Australian policies:<br><br>• Fire Danger Rating national system<br>• Australia bushfire policy—'Prepare, Stay and Defend or Leave Early' |

| Recommendation 2—Council's capability and capacity |
|---|
| That Council:<br><br>2.1. Notes the capability and capacity section of this report, which supports the findings of Councils auditors.<br><br>2.2. Notes that skilled resources are needed to effectively manage the multi-disciplined emergency management function therefore a review of the resource commitment by Council is encouraged.<br><br>2.3. Notes that a review of the current emergency management structure is necessary to assess the adequacy and effectiveness of the structure.<br><br>2.4. Notes the CEO will define the roles and responsibilities of Council, the Executive and each Director and their teams in regard to emergency management functions and program deliverables, including committees, agencies and the community.<br><br>2.5. Adopts an evidence-based performance monitoring, measurement and reporting program that reports regularly to Council, the Executive, Management, relevant committees and, as appropriate, the community.<br><br>2.6. Supports to establishment of a leadership group to help finalise the Bushfire Mitigation Strategy and the Green Wedge Management Plan. This group should incorporate:<br><br>• Council, (2 members: Mayor and 1 other Councillor)<br>• Council Executive, (2 members: CEO and 1 other Executive) |

- Expert advisors, (3 members: emergency / environment / local government experts)
- Stakeholders, (3 members: community members).

## Recommendation 3—Relationship-building models

That Council:

3.1. Notes and endorses the relationship building principles outlined in this report.

3.2. Endorses a shire-wide approach to relationship-building where all employees, partners and community groups and community members commit to achieving respectful and balanced relationships.

3.3. Adopts a Community Engagement Plan and a Communications Plan to progress the Bushfire Mitigation Strategy and bring together key stakeholders.

## Recommendation 4—Best practice model for emergency management planning and preparedness

That Council notes that a number of existing programs represent best practice, and that these programs should be continued. In some instances, these will evolve into new approaches and programs, as outlined in this report.

## Recommendation 5—Best practice achieved through new emergency Management Planning Legislation

That Council notes and endorses the new emergency management legislation (proposed for introduction in 2020) for early adoption and application as part of Council's emergency management program.

## Recommendation 6—Community Resilience

That Council:

6.1 notes that community safety is a shared responsibility between the community, agencies and government.

6.2 adopts the Community Resilience for Emergency Management Framework as a key approach to support community-based emergency management.

## Recommendation 7—Community Recovery Committee

That Council notes the community recovery model and actively supports its development, testing and execution as required.

## Recommendation 8—Community development

That Council notes that community development has an important role to play in building community resilience and supporting relief and recovery efforts.

## Recommendation 9—Emergency relief

That Council notes the various emergency relief models available and works with these key agencies to support the needs of the community during and after an emergency.

## Recommendation 10—Volunteer agencies

That Council notes:

10.1  The volunteer emergency management agencies are critical to plan for, respond to and recover from emergencies

10.2  The administration will actively lead further investigations of the 3Vs to guide volunteer programs in the future.

10.3  The administration will supports the ongoing development of internal staff working and volunteering in emergency management across the organisation

## Recommendation 11—Bushfire Mitigation Strategy

That Council notes that the Bushfire Mitigation Strategy will be updated to reflect the new approaches identified in this plan, and the themes submitted through this plan's consultation process.

# Attachments

## Attachment A: Victorian Bushfire Strategy—Leave and Live approach

A Latrobe University team led by Professor Jim McLennan has examined the behaviour of communities in Victoria, Western Australia, Tasmania and New South Wales who experienced seven major fire events including and since Black Saturday 2009.

Professor McLennan's findings are significant:

- 85 per cent of the 1699 people interviewed believed and understood that they were at risk from bushfire
- 5 per cent had taken the time to write down a plan of action.

Note: in Victoria before Black Saturday, the research found just two per cent had a written bushfire plan.

In more general terms:

- 40 per cent said they would leave when bushfire threatened
- 26 per cent would stay
- 14 per cent would 'wait and see'
- 20 per cent had no plan at all.

Of those who said they would leave, a mere 16 per cent had considered how to implement that plan—in terms of having:

- a safe destination,
- a way of getting there
- a 'go kit' of basic items to help survive such as water, medications and so on.

The harsh reality of these seven major fire events across Australia is that on average only 2 per cent of people left early—in other words, left before a fire started. More alarmingly, the first reaction of many people who remain is to 'wait and see' even when a fire has broken out.

The focus of government since the 2009 Victorian bushfires has been to give people a range of options, especially in terms of last minute shelter. Victoria has led the way in developing standards for:

- private bushfire shelters (bunkers)
- community fire refuges (five established in extreme risk areas)
- neighbourhood safer places—a place of last resort (280 established in high-risk locations).

**Attachment B**: Emergency Management Future Directions Plan Action Matrix

| Nillumbik Emergency Management Future Directions Plan—Action Matrix | | | | |
|---|---|---|---|---|
| **ISSUE AND OBSERVATIONS** | **ACTIONS** | **LEAD AGENCY** | **TIMELINE** | **STATUS** |
| **1. VEGETATION MANAGEMENT** | | | | |
| *Roadside hazard management  (refer to Nillumbik Bushfire Mitigation Strategy Action Plan for implementation details)* | | | | |
| **Hazard management on roadsides is a contested space where environmental, bushfire, safety and legislative issues converge. A clear set of high-level principles and priorities is needed.** | Form a roadside fire management working group to develop high-level principles, review our current priorities and determine an annual works program. Use fire modelling (Pheonix) to validate outcomes. | Council via MEMPC | Sept 2019 | |
| *Private land fire prevention methods and knowledge (refer to Nillumbik Bushfire Mitigation Strategy Action Plan for implementation details)* | | | | |
| **The shire is dominated by a significant area of privately-owned land. This land is divided into parcels of varying sizes, with various uses and vegetation types. As a result, there are different levels of understanding and capability within the community to manage bushfire risk.** | Conduct workshops to share knowledge, methods and approaches for fire prevention on private land, including CFA and indigenous burning programs and treatments. | Council and CFA | Dec 2019 | |
| *Establishing defendable space—private land clearing (refer to Nillumbik Bushfire Mitigation Strategy Action Plan for implementation details)* | | | | |
| **The use of 10/30 and 10/50 rules to reduce risk and fire intensity on private land are underutilised. Landowners do not fully understand these rules and/or are hesitant to use them as bushfire mitigation and prevention methods.** | Promote the use of 10/30 and 10/50 as legitimate methods to establish defendable space. Communicate the practical application of these provisions to residents, including through workshops. | Council | Oct 2019 | |

| Council reserves / cross-tenure land management (refer to Nillumbik Bushfire Mitigation Strategy Action Plan for implementation details) | | | |
|---|---|---|---|
| **The way that public land is managed, including vegetation management, has been reported as inconsistent and not understood by the community. This includes land owned and operated by Council, Melbourne Water, Parks Victoria, VicRoads and DELWP.** | Engage all appropriate landowners and land management agencies to review current and future approaches. Then conduct community workshop/s to share and improve understanding of land management approaches that achieve bushfire mitigation and prevention outcomes. | Council, DELWP with CFA, Melbourne Water, Parks Vic, VicRoads | Oct 2019 |

### 2. COMMUNITY ENGAGEMENT

| Fire Danger Rating (FDR) system (refer to Nillumbik Bushfire Mitigation Strategy Action Plan for implementation details) | | | |
|---|---|---|---|
| **The community's understanding of the FDR system can be improved. The FDR system is a logical tool that can help the community understand weather, environmental conditions, fuel loads and  fire intensity.** | Promote and communicate the logic and practicality of the FDR system—especially the very high, severe, extreme and code red ratings. | Council and CFA | Oct 2019 |

| Bushfire shelter options (refer to Nillumbik Bushfire Mitigation Strategy Action Plan for implementation details) | | | |
|---|---|---|---|
| **Rather than adopting the new 'leave and live' approach, some residents still adhere to the old 'stay or go' philosophy, where staying to protect their property is the preferred option.** **This affects their understanding of the provisions and purpose of Community Fire Refuges (CFR) and Neighbourhood Safer Places (NSP).** | Communicate the "leave and live" approach and conduct a review of NSPs and associated responsibilities. There may need to be additional NSPs, and/or existing NSPs may need to be modified.  The community can discuss and define the actions and infrastructure required for NSPs and CFRs as part of their contribution to Community Emergency Management Plans (CEMPs). | Council and CFA | Dec 2019   complete review by March 2020 |

| Community Fire Guard groups number profile (Refer to Nillumbik Bushfire Mitigation Strategy Action Plan for implementation details) | | | | |
|---|---|---|---|---|
| **CFA Community Fire Guard (CFG) groups are considered very important however there is some frustration with the level of support provided by the CFA. The program is considered by some as not being transparent. This requires further clarification by the CFA.** | CFA to conduct a review of the 70 current CFGs and confirm the CFG program, including their locations, numbers and sustainability profiles.<br><br>CFA to involve local fire brigades in the CFG program to build synergies and improve relationships. | CFA and Council | Sept 2019 | |
| *Engagement with lobby groups* | | | | |
| **Some community lobby groups are highly influential in relation to emergency management and bushfire. It is important to engage with these groups to understand and validate the issues they raise and the role they play in the community. PALS and Friends of Nillumbik are two groups that represent different views and are motivated to be heard. Listening to and better understanding how these groups operate in shire can help to diffuse conflict at the community level.** | Develop a plan and approaches to improve Council's engagement with community lobby groups from across the shire. Key themes should include emergencies, the environment, biodiversity and community wellbeing, with a focus on public safety. | Council | March 2020 | |
| *Nillumbik Shire Council website* | | | | |
| **Emergencies feature on the homepage of the Council website, providing single click access to this information. However this section lacks content and could provide a wealth of information for empowering the community.** | Stage 1: include links to authorised information from partner agencies (CFA, SES, etc)<br>Stage 2: conduct a comprehensive review of this section of the website, ensuring that it provides quality emergency information. | Council | Stage 1— June 2019 Stage 2— Nov 2019 | |

## 3. MUNICIPAL EMERGENCY MANAGEMENT PLANNING AND MUNICIPAL FIRE MANAGEMENT PLANNING COMMITTEE

| *Extreme heat planning* | | | | |
|---|---|---|---|---|
| **Extreme heat is a key risk for the Nillumbik community and will need a greater emphasis over time.** | Consolidate and communicate the key issues regarding extreme heat and integrate these into all Council services and partner agency programs. | Council | Nov 2019 | |
| *Flood / storm planning and capability* | | | | |
| **Flood planning and capability has been well established in accordance with the level of risk shown by traditional flood modelling. Flash flooding and peri-urban development will need to be considered over time. Storm damage will continue to be a key emergency risk due to the entire shire being tree covered.** | SES to conduct a review of storm and flood prediction modelling that focuses on "flash flooding" in a changing environment. | SES | March 2020 | |
| *Relief and recovery programs* | | | | |
| **While there has been no specific criticism of Council's relief and recovery programs, there appeared to be a lack of clarity about roles, responsibilities and execution in the first 72 hours of a major emergency.** | Test and review the relief services program that will deliver timely, relevant and quality relief services in the first 72 hours from the commencement of the emergency. | Council and DHHS | Nov 2019 | |

| | | | | |
|---|---|---|---|---|
| **_Animal management and welfare_** | | | | |
| **Animal welfare, movement of animals and management of dead animals were raised as issues that required more planning and understanding.** | Revisit the entire approach to animal management and welfare in the planning, response and relief/recovery phases of an emergency.<br><br>Confirm the requirements and communicate the arrangements to the community. | Council | Nov 2019 | |
| **_Extended loss of electricity_** | | | | |
| **A concern was raised about the loss of electricity for an extended period due to flood, fire or any other reason. The potential consequences across the entire community are significant and require planning and exercising.** | Consolidate the loss of electricity plan and communicate the key issues to key internal and external stakeholders and the community. Integrate this plan into all Council services and partner agency programs. The plan should cover the 24 hour, 72 hour and 7 day periods. It should provide details of the power company and others who need to be involved. | Council | Dec 2019 | |
| **_Agency and cross-Council relationships_** | | | | |
| **Council actively purses key agency and cross-Council relationships within the North and West Region.**<br><br>**Murrindindi Council is not part of the North and West Region, which is considered to be a gap. A MoU is in place but there is limited interaction regarding emergency management.** | Revisit, consolidate and communicate the relationships, resource-sharing and business continuity arrangements with all neighbouring municipalities. | Council | Sept 2019 | |

| Emergency management committees   (refer to Nillumbik Bushfire Mitigation Strategy Action Plan for implementation details) | | | |
|---|---|---|---|
| **The Municipal Emergency Management Planning Committee and the Municipal Fire Planning Committee are in operation. However there is a critical need for a strategic road map which identifies key themes and  issues to be addressed by these committees.**<br><br>**As a first step, the MEMPC is developing a three-year action plan to assist in this area.**<br><br>**The committee executives are also committed to gaining support for attendance and discussion. It was noted that the committee membership might need to be broader, with the inclusion of the Department of Education and others.** | MEMPC to revisit the format and approach of the committee and finalise its strategic themes by developing a strategic road map.<br><br>Resolve the various committee roles and approaches with a focus on increasing engagement and involvement.<br><br>Revisit the membership to include the Department of Education and others (such as agriculture for livestock), as appropriate. | Council via MEMP and MFMP Committees | Sept 2019 |