

Euca Planning

Bushfire Specialists



Morwell Traralgon Employment Corridor Investment Masterplan Bushfire planning considerations report

December 12th, 2018. Version 1.1

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Requirements detailed in this document do not guarantee survival of the buildings or the occupants. The client is strongly encouraged to develop and practice a bushfire survival plan.

Information and assistance including a template for a Bushfire Survival Plan is provided as part of the 'Fire Ready Kit' available through the CFA website at www.cfa.vic.gov.au or through your local CFA Regional office.

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Version Control

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Field Assessment	Deanne Smith	21 November 2018	
Initial CFA consultation	Deanne Smith	28 November 2018	With LCC
Report	Deanne Smith	12 December 2018	Review by LCC
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1.0 Introduction

This Report has been prepared for Latrobe City Council to inform the acknowledgement of bushfire risk in the Morwell Traralgon Employment Corridor Investment Masterplan (August 2018). The report comprises a review of the bushfire aspects of the document titled Morwell Traralgon Employment Corridor Investment Masterplan (August 2018) prepared by Urban Enterprise in conjunction with Latrobe City Council and Department of Environment, Land, Water and Planning (DELWP).

The report has been presented consistent with the content of the Latrobe Planning Scheme, in particular Clause 13.02, and in accordance with guidance provided in:

- Bushfire State Planning Policy Amendment VC140, Planning Advisory Note 68 (DELWP, 2018); and
- Local planning for bushfire protection, Planning Practice Note 64 (DELWP, 2015).

The report establishes the context by providing factual information which is important when considering the way bushfire considerations may impact on the future use of the land. A structured approach to risk identification and management follows which can be used to provide decision makers with information to explain the bushfire risk and inform future design response to that risk.

1.1 Background

The Morwell Traralgon Employment Corridor (MTEC) Investment Masterplan is Stage 2 of the MTEC project. The document is to be subject of a future Planning Scheme Amendment, and this report is to support that process.

In response to the Planning Policy Framework regarding bushfire risk (as introduced by Amendment VC140 in December 2017), Latrobe City Council sought the preparation of a bushfire considerations report for MTEC, including consultation with CFA. The Masterplan identifies the need for a bushfire risk assessment to be undertaken. The author of this report has been involved in consultation with CFA to address CFA concerns and appropriately address bushfire matters in the Masterplan.

2.0 Locality and Site Description

The report relates to the area and content of the Masterplan, as shown in Figure One. As described in the Masterplan:

“The MTEC is a very large area of land located to the immediate north of the Princes Highway between the urban areas of Morwell and Traralgon. Key existing land uses include the Latrobe Regional Hospital, the Latrobe Regional Airport, Lion Foods, a car dealership sales cluster, rural living and low-density residential land and farming land. MTEC has the potential to accommodate a range of land uses and provides the opportunity to develop a regionally significant employment precinct in the Gippsland region to leverage from the resource and value-add strengths of Latrobe and the Princes Highway corridor.” (page 1, MTEC)

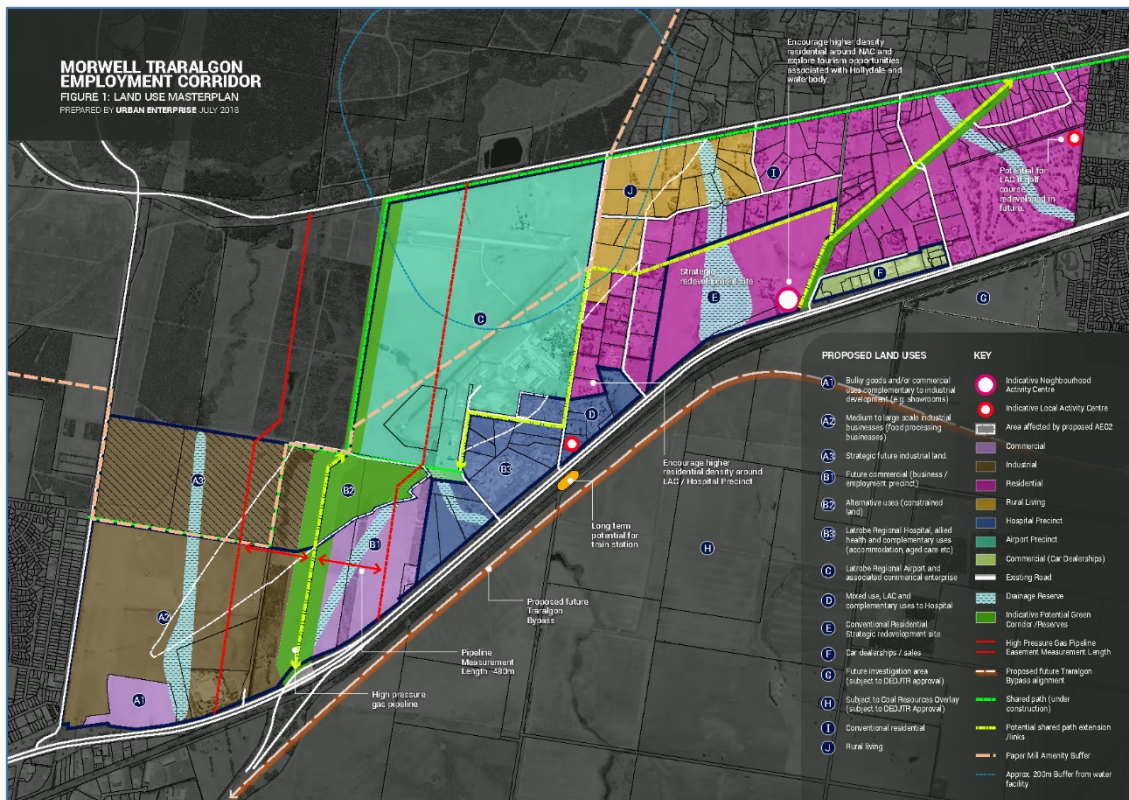


Figure One – Land use Masterplan showing the location of MTEC (Urban Enterprise, 2018)

Within the study area, there are six key precincts identified for investigation (Precinct A - F). A further three precincts are located outside of the study area for which broad recommendations are also made on the basis of their strong physical relationship to land in the MTEC (Precincts G, H, I and J). Consistent with the Masterplan, the fire risk assessment responds to the precincts.

3.0 Planning Policy

3.1 State Planning Policy Overview

Clause 71.02-3 (integrated decision making) of the Planning Scheme has been recently amended and provides that:

Planning authorities and responsible authorities should endeavour to integrate the range of policies relevant to the issues to be determined and balance conflicting objectives in favour of net community benefit and sustainable development for the benefit of present and future generations. However in bushfire affected areas, planning authorities and responsible authorities must prioritise the protection of human life over all other policy considerations.

Clause 13.02 (Bushfire) of the Planning Scheme applies to all decision making and seeks to:

*To strengthen the resilience of settlements and communities to bushfire through **risk-based planning** that prioritises the protection of human life.*

[Emphasis added]

Clause 13.02-1S includes a number of strategies to achieve that objective. Broadly these strategies include:

- prioritising the protection of human life;
- requiring a robust assessment of the bushfire hazard and risk assessment before any strategic or statutory decision is made; and
- directing population growth and new settlements to low risk locations.

Importantly in relation to settlement planning, clause 13.02-1S includes the following requirements:

- *Directing population growth and development to low risk locations, being those locations assessed as having a radiant heat flux of less than 12.5 kilowatts/square metres under AS 3959-2009 Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2009).*
- *Ensuring the availability of, and safe access to, areas assessed as a BAL-LOW rating under AS 3959-2009 Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2009) where human life can be better protected from the effects of bushfire.*
- *Ensuring the bushfire risk to existing and future residents, property and community infrastructure will not increase as a result of future land use and development.*
- *Achieving no net increase in risk to existing and future residents, property and community infrastructure, through the implementation of bushfire protection measures and where possible reduce bushfire risk overall.*
- *Assessing and addressing the bushfire hazard posed to the settlement and the likely bushfire behaviour it will produce at a landscape, settlement, local, neighborhood and site scale, including the potential for neighborhood-scale destruction.*
- *Assessing alternative low risk locations for settlement growth on a regional, municipal, settlement, local and neighborhood basis.*
- *Not approving any strategic planning document, local planning policy, or planning scheme amendment that will result in the introduction or intensification of development in an area that has, or will on completion have, more than a BAL-12.5 rating under AS 3959-2009.*

When these strategies are read together it is clear that any future development plan and/or subdivision would be required to provide a considered assessment of the bushfire risk on existing and future communities. As such, the Morwell Traralgon Employment Corridor must respond to bushfire risk. The purpose of this report is to ensure the plan adequately responds to the consideration of bushfire risk.

In the context of strategic planning decisions, these strategies need to be read as on balance and consider the 'net increase in risk to existing and future residents'. As it relates to the objectives at Clause 13.02 of the Planning Scheme, it is necessary to ensure that the protection of human life is prioritised when decisions are made. However the strategies listed at Clause 13.02-1S in the Planning Scheme are not 'mandatory requirements' and it is not necessary to 'tick every box'. It is more important to ensure that decisions are consistent with the State policy objectives

and build resilient communities.

3.2 State Planning Policy Assessment

3.2.1 Objective

Clause 13.02-1S seeks to *'strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life'*.

3.2.2 Application

The policy must be applied to all planning and decision making under the Planning and Environment Act 1987 relating to land which is within a designated bushfire prone area; or subject to a Bushfire Management Overlay.

Bushfire Prone Area

The planning proposal area is included in the Bushfire Prone Area (BPA). As described in Planning Advisory Note 46 (2013), the BPA is a building regulation tool that identifies where moderate bushfire hazard can be expected. It applies to areas subject to the BMO, and to areas that experience a lower head fire intensity modelled to be between 4,000kW/m and 30,000kW/m. This level of hazard informs areas declared as bushfire prone in the building system. Areas at the upper end of the bushfire intensity range (that is 28,000kW/m and above and referred to as BHL1b) are considered, where appropriate, for applying the BMO based on the advice of the relevant fire authority. Except for a small portion in the east, the entire area contained in the Master Plan is subject to the BPA. The greater area surrounding Morwell and Traralgon is also in the BPA reflecting the moderate bushfire hazard that can be expected from the grasslands that connect to the residential interface.



Figure Two: Extent of the Bushfire Prone Area across the subject area and in the vicinity (Planning Maps Online, DELWP, 2018).

In December 2017, Clause 13.02-1S of the Latrobe Planning Scheme was amended to specifically refer to Bushfire Prone Areas and to strengthen the consideration of bushfire risk in all planning decisions. As the site is fully contained within the Bushfire Prone Area, the minimum level of construction for all dwellings is BAL 12.5, and this bushfire risk must be considered.

Bushfire Management Overlay

The Bushfire Management Overlay applies to land that interfaces with the northern and western boundaries of the Master Plan area.

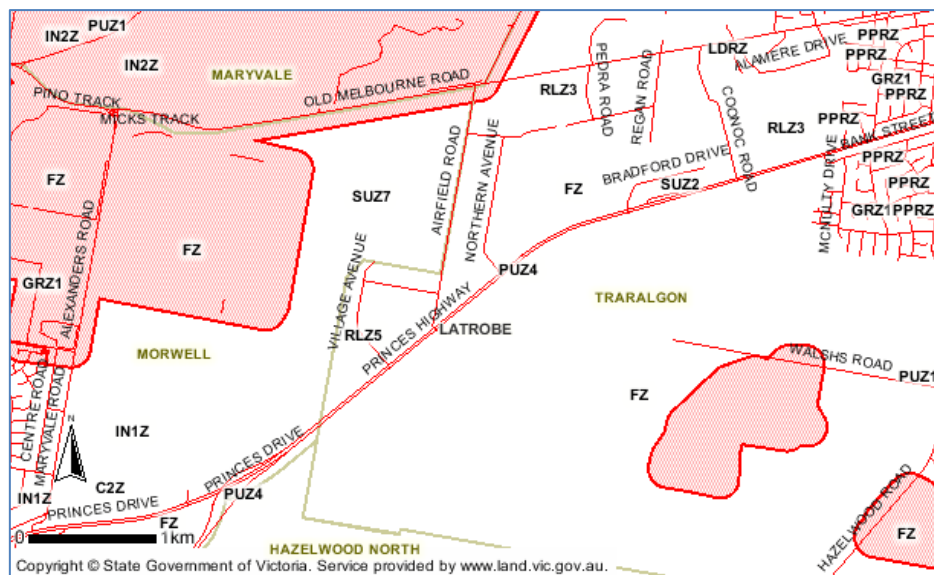


Figure Three: Current extent of Bushfire Management Overlay across the subject area and in the vicinity (Planning Maps Online, DELWP, 2018).

As described in Planning Advisory Note 46 (2013), the BMO is a planning scheme provision used to guide the development of land in areas of high bushfire hazard. The location, design and construction of development and the implementation of bushfire protection measures must be considered under a BMO. The BMO applies to areas where there is potential for extreme bushfire behaviour, such as a crown fire and extreme ember attack and radiant heat.

The most significant bushfire hazard where head fire intensity is modelled to be 30,000kW/m or more informed where the BMO should apply. Inputs to this calculation included physical characteristics including vegetation, topography and separate fire behaviour models appropriate to the vegetation classification. Whilst areas of contiguous vegetation of less than 4Ha were excluded, buffers within 150 metres of vegetation were included in recognition of research that 92% of house loss occurs within this distance (Blanchi, Lucas, Leonard, & Finkel, 2010).

Initiated by a recommendation of the 2009 Victorian Bushfires Royal Commission, the BMO was mapped using hazard data developed by the Department of Environment and Primary Industries (DEPI). Revised mapping was verified by Councils during 2016 and 2017 and then gazetted on October 3rd, 2017. As a result, the consideration of bushfire risk is included in the Morwell and Traralgon Employment Corridor Masterplan.

3.2.3 Strategies

Protection of human life

<i>Give priority to the protection of human life by:</i>	<i>Response</i>
Prioritising the protection of human life over all other policy considerations	This proposal is an opportunity to provide planned development along the Morwell-Traralgon Corridor. It also is an opportunity to enhance the bushfire safety at a settlement level through the Master Plan, and at a site-based level through design guidance. The Plan needs to be undertaken in a manner that will improve the safety of the existing development, and provide sufficient protection to new residents and employees. Some sites, particularly the Latrobe Regional Airport are important for achieving this policy consideration. The importance of the Airport's role in the safety for this corridor should be highlighted in the Master Plan and the Latrobe Regional Airport Master Plan.
Directing population growth and development to low risk locations and ensuring the availability of, and safe access to, areas where human life can be better protected from the effects of bushfire.	The proposed growth is consistent with the bushfire risk. Opportunities for employment are provided in the broader realm and limited residential development opportunity in the areas at highest risk of bushfire. The overall design of precincts must respond to the retained farming land, vegetation and plantations. The street network should facilitate safe egress, and perimeter roads along the interface where specified. The Master Plan provides a segmented approach to identifying what needs to be achieved and this design guidance should be expanded with regard to bushfire risk, as identified in this report.
Reducing the vulnerability of communities to bushfire through the consideration of bushfire risk in decision-making at all stages of the planning process.	The Master Plan provides an opportunity to improve the safety of the existing corridor by clarifying the treatment interface between the settlement and the bushfire hazard. . Bushfire risk should be considered in the landscaping plans, street design, and ongoing land management. Any development plan, major development or application to subdivide land needs to articulate how the design responds to the identified bushfire risk. Further guidance is provided in this report.

Bushfire hazard identification and assessment

<i>Identify bushfire hazard and undertake appropriate risk assessment by:</i>	<i>Response</i>
Applying the best available science to identify vegetation, topographic and climatic conditions that create a bushfire hazard.	The Latrobe Planning Scheme relies on the Structure Plan responding to bushfire based on current assessment methods. Clauses 13.02,

	and 53.02 are to be considered for all of the land, and Clause 44.06 is of relevance to the land contained in the Bushfire Management Overlay. The importance of bushfire planning being strengthened by Clause 71.02-3 <i>Integrated Decision Making</i> emphasizes the need to reconcile potential conflicts in design and vision at this early stage.
Considering the best available information about bushfire hazard including the map of designated bushfire prone areas prepared under the Building Act 1993 or regulations made under that Act.	Consistent with the revised Clause 13.02, the Master Plan must respond to the Bushfire Prone Area, and the limited area covered by the Bushfire Management Overlay. Further work is required to determine the lot yields and required setbacks for properties adjacent to the bushfire risk. Sufficient direction in the Master Plan will facilitate this to occur at a later date, however for areas not currently zoned residential this need to occur prior to endorsement of the plan.
Applying the Bushfire Management Overlay in planning schemes to areas where the extent of vegetation can create an extreme bushfire hazard	The BMO is applied to areas of extreme hazard, primarily located outside the proposed Master Plan. The direct influence of this vegetation on the ability of the Master Plan to achieve its design outcomes is adequately considered.
Considering and assessing the bushfire hazard on the basis of: <ul style="list-style-type: none"> • Landscape conditions - meaning the conditions in the landscape within 20 kilometres and potentially up to 75 kilometres from a site; • Local conditions - meaning conditions in the area within approximately 1 kilometre from a site; • Neighbourhood conditions - meaning conditions in the area within 400 metres of a site; and, • The site for the development 	In light of the recent changes to Clause 13.02 and the addition of this assessment requirement, an assessment is provided in Section 4.0 of this report. As it is a Master Plan area, three scales of consideration are applied - Landscape conditions at 20km, Local conditions at 10 km, and Neighbourhood conditions at 1km. The site conditions are considered through the Bushfire Hazard Site Assessment and would be provided at subdivision stage.
Consulting with emergency management agencies and the relevant fire authority early in the process to receive their recommendations and implement appropriate bushfire protection measures.	CFA will be a referral authority for consideration of the Planning Scheme Amendment. Additionally, CFA is expected to be will be consulted during the referral of the amendment. An initial consultation with CFA occurred on 28 November 2018.
Ensuring that strategic planning documents, planning scheme amendments, planning permit applications and development plan approvals properly assess bushfire risk and include appropriate bushfire protection measures	The content of this report provides a solid foundation for enhancing the treatment of bushfire risk by the Master Plan. Future applications to subdivide land will need to fully assess the site-based bushfire risk and include appropriate bushfire protection measures (e.g. managed land, BALs, landscaping of public spaces) consistent with the direction of the Planning Scheme and the Master Plan.

Not approving development where a landowner or proponent has not satisfactorily demonstrated that the relevant policies have been addressed, performance measures satisfied or bushfire protection measures can be adequately implemented.	This element of the revised Clause 13.02 is the most important element and empowers the Responsible Authority to not approve a permit application until it is satisfied with the bushfire protection measures being implemented. This also enables the Responsible Authority to instill requirements for developments to also provide a response to bushfire risk in their approval process.
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Settlement Planning

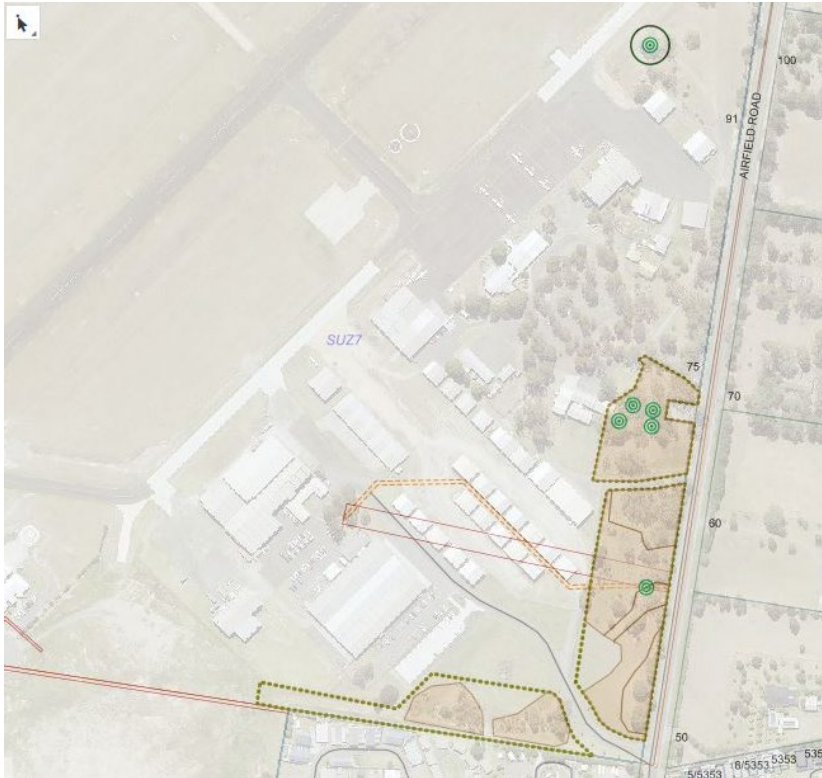
<i>Plan to strengthen the resilience of settlements and communities and prioritise protection of human life by:</i>	<i>Response</i>
Directing population growth and development to low risk locations, being those locations assessed as having a radiant heat flux of less than 12.5 kilowatts/square metres under AS 3959-2009 Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2009).	Development of land should contribute to the establishment of an improved interface and township edge. No lot should be approved where the development can be built to a higher BAL than BAL12.5. If necessary, building envelopes should be provided on lots to provide certainty with regard to development.
Ensuring the availability of, and safe access to, areas assessed as a BAL-LOW rating under AS 3959-2009 Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2009) where human life can be better protected from the effects of bushfire	The nature of the Morwell-Traralgon Corridor and in particular the presence of a bushfire hazard adjacent the northern edge limits the existence of an area that is considered BAL-LOW. Opportunity does exist central to the Master Plan to develop future settlement in a way that meets this intent, and will provide for protection of human life. The Latrobe Regional Hospital already meets this requirement.
Ensuring the bushfire risk to existing and future residents, property and community infrastructure will not increase as a result of future land use and development.	The Municipal Fire Management Plan should also acknowledge the key areas for treatment. Any permit to subdivide or develop land that is issued should provide a permit condition that ensures the ongoing management of the balance land contained between development and the unmanaged vegetation. A similar condition has been used in The Acreage Development Plan area of Tyers (Latrobe City), and by the VPA in Precinct Structure Plan areas.
Achieving no net increase in risk to existing and future residents, property and community infrastructure, through the implementation of bushfire protection measures and where possible reduce bushfire risk overall.	The Master Plan provides a design response that considers the integration of bushfire mitigation measures into the settlement to provide an improved settlement. Emphasis on edge roads along open space and undeveloped land interface is required the safety of the new residents. With appropriate mitigation measures, development will decrease the risk of bushfire to the existing hospital and Traralgon West area and will not lead to a net increase in risk.

Assessing and addressing the bushfire hazard posed to the settlement and the likely bushfire behaviour it will produce at a landscape, settlement, local, neighbourhood and site scale, including the potential for neighbourhood-scale destruction	In light of the recent changes to Clause 13.02 and the addition of this assessment requirement, an assessment is provided in Section 4.0 of this report. As it is a Master Plan area, three scales of consideration are applied- Landscape conditions at 20km, Local conditions at 10 km, and Neighbourhood conditions at 1km. The site conditions are considered through the Bushfire Hazard Site Assessment.
Assessing alternative low risk locations for settlement growth on a regional, municipal, settlement, local and neighbourhood basis.	The Master Plan covers a corridor that can achieve an extensive area of low risk adjacent the main highway. There is proximity to highly urbanized towns of Morwell and Traralgon.
Not approving any strategic planning document, local planning policy, or planning scheme amendment that will result in the introduction or intensification of development in an area that has, or will on completion have, more than a BAL-12.5 rating under AS 3959-2009.	This element of the revised Clause 13.02 is the most important element and empowers the Responsible Authority to only approve the Structure Plan and the Planning Scheme Amendment when it is demonstrated that a maximum BAL12.5 rating is achieved. This is demonstrated at a strategic level by this report however, further refinement for some locations may be required to determine lot yield. That is able to be done at a Development Plan, or development planning stage.

Areas of high biodiversity conservation value

Ensure settlement growth and development approvals can implement bushfire protection measures without unacceptable biodiversity impacts by discouraging settlement growth and development in bushfire affected areas that are of high biodiversity conservation value.

Response: The Latrobe Regional Airport has an area of vegetation that is considered an 'offset'. This vegetation is limited to scattered trees located in the grounds of the terminal between the terminal building and Airfield Road. It is a small patch of vegetation and is excludable from assessment due to its size and nature.



Extract from Latrobe City Council Mapping showing the vegetation offset locations and extent

Use and development control in a Bushfire Prone Area

In a bushfire prone area designated in accordance with regulations made under the Building Act 1993, bushfire risk should be considered when assessing planning applications for the subdivisions of more than 10 lots.

Response: Any future subdivision is expected to be more than 10 lots, and this clause is relevant.

When assessing a planning permit application for the above uses and development:	Response
Consider the risk of bushfire to people, property and community infrastructure.	Future planning permit applications will need to provide an appropriate response, Clause 53.02 of the Scheme assists as a guide.
Require the implementation of appropriate bushfire protection measures to address the identified bushfire risk.	Future planning permit applications will need to provide an appropriate response, Clause 53.02 of the Scheme assists as a guide.
Ensure new development can implement bushfire protection measures without unacceptable biodiversity impacts.	Future planning permit applications will need to provide an appropriate response, that works with the landscaping design response.

3.2.4 Policy guidelines

Planning must consider as relevant:	Response
Any relevant approved State, regional and municipal fire prevention plan.	Future planning permit application assessments should be informed by the Municipal Fire Management Plan, the Latrobe Regional Airport

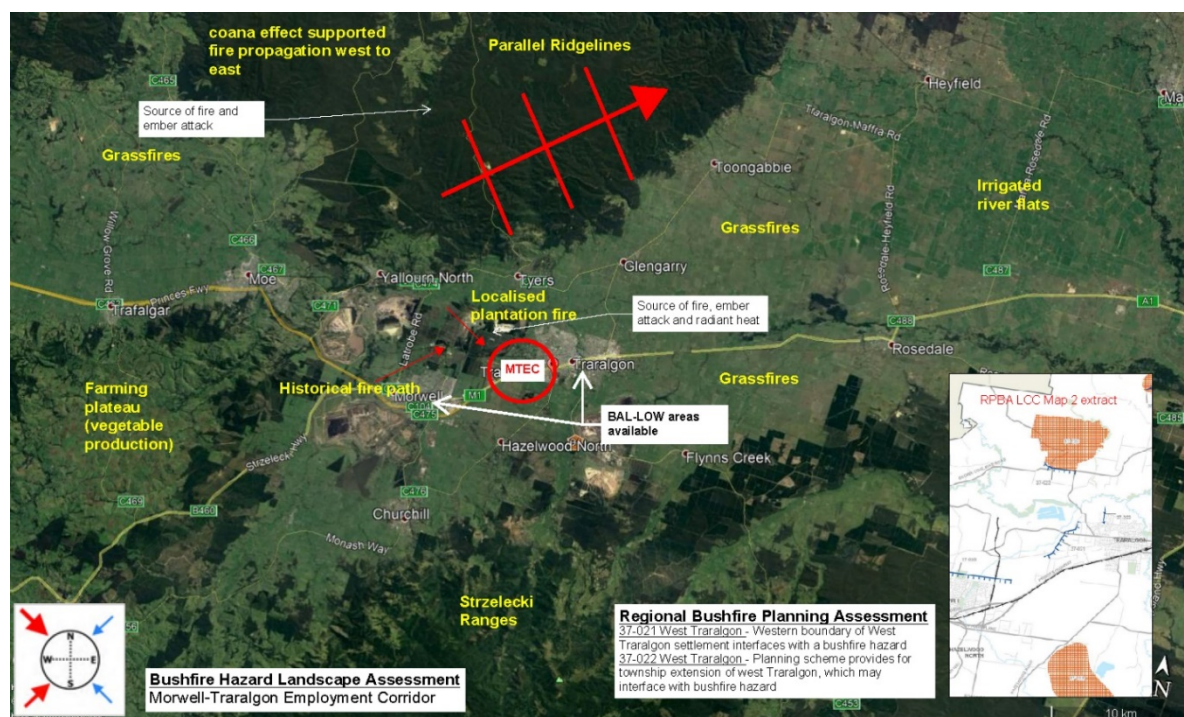
	Master Plan and related vegetation management plans.
AS 3959-2009 Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2009).	This is relevant through the derivation of Bushfire Attack Levels, and is considered when referring to BAL12.5
Building in bushfire-prone areas - CSIRO & Standards Australia (SAA HB36-1993, May 1993).	This is the handbook to AS3959-2009 and does not need to be considered directly by the Development Plan
Any Bushfire Prone Area map prepared under the Building Act 1993 or regulations made under that Act.	The updated Bushfire Prone Area map has been considered in this report.

4.0 Bushfire Risk

In light of the recent changes to Clause 13.02 and the addition of this assessment requirement, an assessment on bushfire risk consistent with Clauses 13.02, 44.06 and 53.02 is provided. As it is a Master Plan and subsequently a Planning Scheme Amendment, three scales of consideration are applied - Landscape conditions at 20km, Local conditions at 10 km, and Neighbourhood conditions at 1km. The site conditions should be considered, where necessary, through the Bushfire Hazard Site Assessment at the time of subdivision and future development.

4.1 Landscape Conditions

The landscape risk of a site is an important consideration when mitigating bushfire hazards. The landscape risk is the combination of a number of elements in the surrounding landscape. These relate to the vegetation extent, the area available to a landscape bushfire, the orientation of the ridgelines and the steepness of the terrain, the accessibility to low threat areas and the quality of the road networks surrounding the site.



Within 20 kilometres of the Master Plan, key features include:

- The extensive grassland and farming land to the east and west;
- The southern tip of the forested Great Dividing Range;
- The Princes Highway (west to east);
- Urban settlement in the key towns of Moe, Morwell, Traralgon and Churchill;
- Small towns of Yallourn North and Hazelwood North.
- The open cut coal mines south and west of Morwell, and south of Traralgon.

This area is positioned between Morwell and Traralgon adjacent the Princes Highway. The vegetation in the broader landscape is grassland, with forest including plantation to the south and north. The location has a medium risk of bushfire that needs to be mitigated through appropriate land management and design. Of influence is the fire run through plantation from the north and north-west. Structured settlement planning provides a greater level of protection to the existing township, and the Masterplan provides that mechanism.

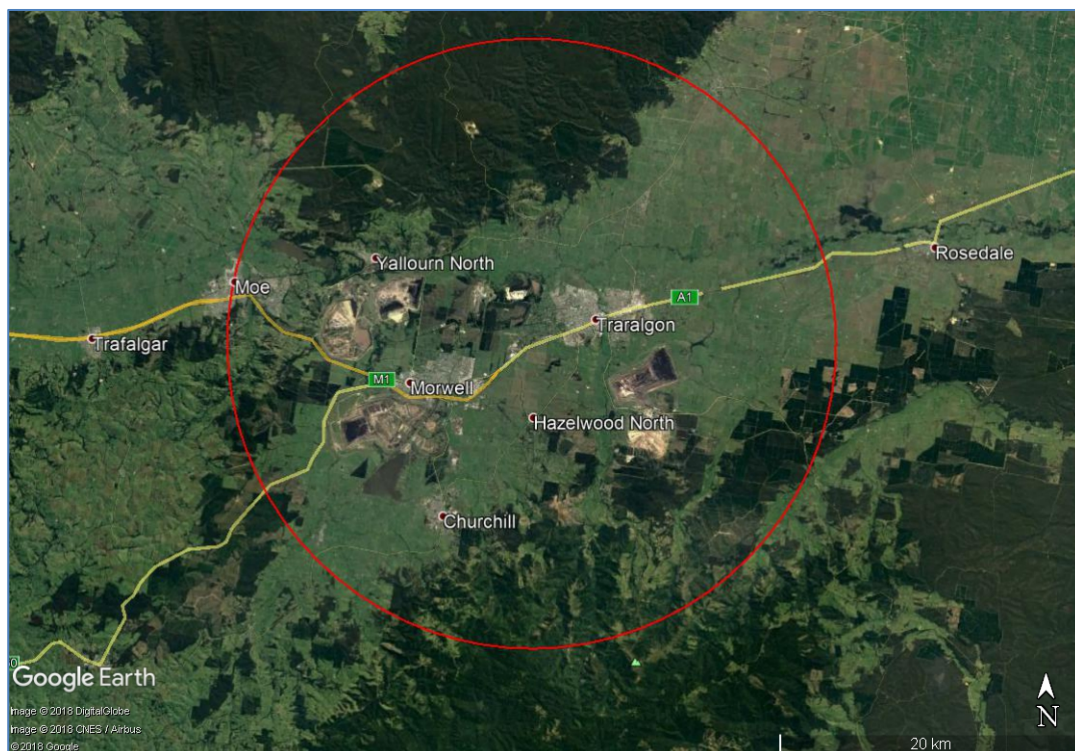


Figure Six: Location within the context of 20km radius from MTEC (Google Earth, 2018)

4.2 Local Conditions



Figure Seven: Location within the context of 10km radius from MTEC (Google Earth, 2018)

Within 10 kilometres of the Master Plan, key features include:

- The extensive grassland and farming land;
- The extensive residential areas of the Morwell and Traralgon townships;
- The Princes Highway (west to east), and local connector roads (north to south);
- Urban settlement in the key towns of Morwell and Traralgon;
- Isolated area of plantation to the north-west of the land;
- The open-cut mines south of Morwell and Traralgon.

4.3 Neighbourhood Conditions

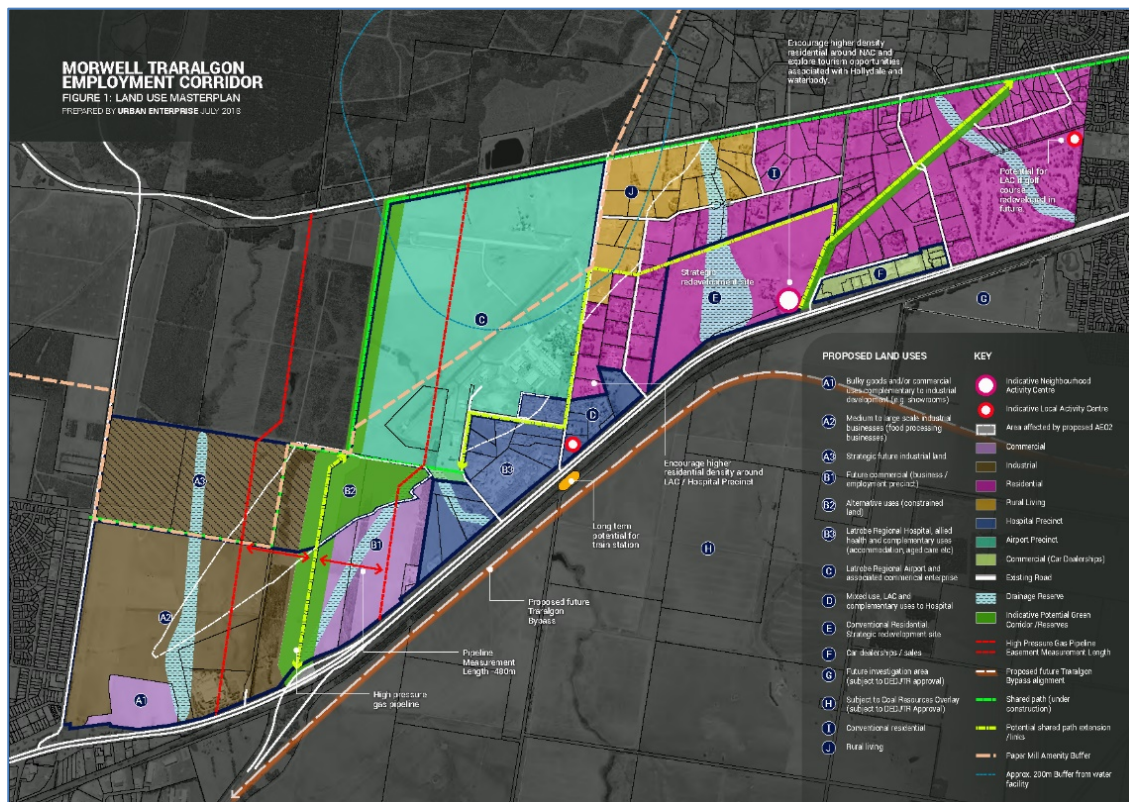


Figure Eight: Location within the context of 1km radius from Masterplan (Google Earth, 2018)

Key features located within 1 kilometre of the development plan area include:

- Established residential area east of the site in the Traralgon township;
- Existing rural living area in the western part and to the north of the land;
- Gippsland water treatment including buffer to the north;
- Latrobe Regional Airport, central to image;
- Latrobe Hospital and ancillary buildings including a motel in the south
- Established car sales area to the west;
- Farmland to the south;
- Main access road (Old Melbourne Road) bounding the structure plan to the north and leading directly east into BAL-LOW area;
- Proximity to a BAL-LOW area in the Morwell and Traralgon Townships.

4.4 Bushfire Scenarios

Scenario 1 – Bushfire from the north

The worst scenario for this site is a fire approaching from the north which has the potential for a 3km fire run through plantation impacting the land from the north. The plantation is associated with the Paper Mill and is a typical land use in the area. The terrain is not steep and has some undulation, with trees grown in planting blocks. This fire scenario is likely to provide radiant heat and ember attack to the Master Plan area. This fire is not a landscape fire, but a settlement fire threat that can be mitigated by appropriate setbacks and property management.

Scenario 2 – Grassfire

Grassfire can impact from all direction where an urban, paved landscaped does not exist. This fire can be mitigated by land management and typical urban infrastructure – roads, carparks, and buildings. This fire scenario is likely to provide radiant heat to the Master Plan area. This fire is not a landscape fire, but a localised fire threat that can be mitigated by appropriate setbacks primarily achieved by adequate roadside management and the presence of urban infrastructure.

4.5 Other considerations in relation to bushfire

The Regional Bushfire Planning Assessment (RBPA) for the Gippsland Region (2012) provides a high level analysis of locations where the bushfire hazard may impact on planning objectives. The RBPA provides information where a range of land use planning matters intersect with a bushfire hazard to influence the level of risk to life and property from bushfire. This information is required to be used as part of strategic land use and settlement planning at the regional, municipal and local levels.

“The RBPA is not a statutory planning provision and does not directly translate into planning schemes. However, it complements planning scheme provisions such as the Bushfire Management Overlay (BMO) by providing spatial and qualitative information from a variety of sources which together can inform considerations about where bushfire should be assessed early in the strategic planning process.” RBPA – Gippsland Region (2012).

This area is not referenced directly in the Regional Bushfire Planning Assessment, but is acknowledged on the Bushfire Hazard Landscape Assessment.

5.0 Review of the Draft Master Plan

The Morwell Traralgon Employment Corridor Master Plan has been reviewed, and detail on improving the consideration of bushfire risk is provided in Appendix One. The improvements are noted for addition to the document, however the following overarching recommendations also apply:

1. Emphasise the importance of ‘prioritising the protection of human life over all other policy considerations in design considerations’.
2. Add representation of the fire risk to selected figures, which could include:
 - a. Depiction of a ‘fire threat edge’ at the interfaces
 - b. Spatial representation of the BMO
 - c. Directional arrows for fire threat

Any application to subdivide land in the Plan should:

1. Articulate how the design responds to the identified bushfire risk, including in the landscaping plans, road network, street plantings and lot size and orientation.
2. Provide a subdivision layout to ensure that all future dwellings can achieve a maximum Bushfire Attack Level of BAL12.5.
3. Respond to all classifiable vegetation in accordance with AS3959-2009 and the Planning Scheme

6.0 References

AN68 Bushfire State Planning Policy VC140

Blanchi, R., Lucas, C., Leonard, J., & Finkele, K. (2010). Meteorological conditions and wildfire-related house loss in Australia. *International Journal of Wildland Fire*, 19(7), 914-926.

Standards Australia (2009) Construction of Buildings in Bushfire Prone Areas. Standards Australia, North Sydney, NSW.

The State of Victoria Department of Environment, Land, Water and Planning (2017) Planning Permit Applications Bushfire Management Overlay – Technical Guide.

The State of Victoria Department of Planning and Community Development (2012) Regional Bushfire Planning Assessment – Gippsland Region.

The State of Victoria Department of Transport, Planning and Local Infrastructure (2014) Planning Practice Note 64 – Local Planning for Bushfire Protection. Victorian Government, Melbourne.

The State of Victoria Department of Transport, Planning and Local Infrastructure (2013) Planning Advisory Note 46: Bushfire Management Overlay Mapping Methodology and Criteria. Victorian Government, Melbourne.

Appendix One – Bushfire Mitigation Measures by Precinct