

**951 YANNATHAN ROAD, 30 GLOVERS ROAD &  
379 LANG LANG-POOWONG ROAD, NYORA**

**BUSHFIRE MANAGEMENT STATEMENT**

**Wallis Watson (Nyora) Pty Ltd  
C/ Beveridge Williams**



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**Report No. 17032 (3.1)**

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## 1. INTRODUCTION AND POLICY CONTEXT

On behalf of Wallis Watson (Nyora) Pty Ltd, Beveridge Williams engaged Brett Lane & Associates Pty Ltd (BL&A) to prepare a Bushfire Management Statement (BMS) for the proposed subdivision of the three properties at 951 Yannathan Road, 30 Glovers Road and 379 Lang Lang-Poowong Road, Nyora (see Figure 1). The combined area of these three properties is approximately 103 hectares and is located immediately to the north east of the existing Nyora township in South Gippsland, Victoria.

This BMS has been prepared for the proposed subdivision to ensure that any future development does not significantly increase the threat to life and property from bushfire, consistent with the objectives of state planning controls.

A portion of the property at 379 Lang Lang-Poowong Road, Nyora is covered by the Bushfire Management Overlay (BMO), under Clause 44.06 of the South Gippsland Planning Scheme, as depicted in Figure 2.

A permit is required under the BMO to construct a building or carry out works associated with accommodation.

The objectives of the BMO are:

- To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies;
- To ensure that the development of land prioritises the protection of human life and strengthens community resilience to bushfire;
- To identify areas where the bushfire hazard warrants bushfire protection measures to be implemented; and
- To ensure development is only permitted where the risk to life and property from bushfire can be reduced to an acceptable level.

Under Clause 66.03 of the South Gippsland Planning Scheme, any proposal to develop land with a dwelling will be referred to the relevant fire authority.

Clause 53.02 applies to all applications under Clause 44.06. The current application will be assessed under the Clause 53.02-4. The bushfire protection objectives outlined in Clause 53.02-4 therefore apply to the proposed development. These objectives set out approved measures (or alternative measures for certain circumstances) which must be adopted to achieve the following outcomes for the proposed development:

- Landscape, siting and design:
  - Ensure that the development has regard to the nature of the bushfire risk arising from the surrounding landscape;
  - Site development to minimise the risk from bushfire;
  - Site development to provide safe access for vehicles, including emergency vehicles;
  - Design buildings to minimise vulnerability to bushfire attack;
- Water supply and access
  - Provide a static water supply to assist in protecting property; and

- Design and construct vehicle access to enhance safety in the event of a bushfire.

For subdivisions, Clause 53.02-4.4 sets out the following additional objectives:

- To provide lots that are capable of being developed in accordance with the objectives of Clause 53.02; and
- To specify at the subdivision stage bushfire protection measures to develop a lot with a single dwelling on land zoned for residential or rural residential purposes.

These objectives set out additional approved measures (or alternative measures for certain circumstances) which must be adopted.

The entire site (all three properties) falls within a mapped Bushfire Prone Area. Under Clause 13.02 of the State Planning Policy Framework, the Responsible Authority must do the following when assessing a planning permit application for any subdivision of more than 10 lots in a Bushfire Prone Area:

- Consider the risk of bushfire to people, property and community infrastructure;
- Require the implementation of appropriate bushfire protection measures to address the identified bushfire risk; and
- Ensure new development can implement bushfire protection measures without unacceptable biodiversity impacts.

For the purpose of expediency, and with some exceptions, all three subject properties will be treated as though they are subject to the requirements of Clause 44.06 (BMO) of the South Gippsland Planning Scheme, and the associated Clause 53.02, outlined as follows:

- **Bushfire hazard site assessment** of bushfire hazards within 150 metres of the permit area and any that may remain in the permit area following development. The descriptions of the hazards have been prepared in accordance with the Australian Standard AS 3959-2009 *Construction of buildings in bushfire prone areas*. This assessment includes calculation of the bushfire attack level (BAL) associated with these bushfire hazards, which provides calculation of the defensible space and construction requirements for the edges of the development facing the hazard (Section 3.1 of this report);
- **Bushfire hazard landscape assessment** including a plan that describes the bushfire hazard of the general locality more than 150 metres from the site. Photographs or other techniques may be used to assist in describing the bushfire hazard (Section 3.2 of this report); and
- **Bushfire Management Statement (BMS)**, which details how the application would meet the bushfire protection measures required under Clause 53.02-4.4 (Section 4 of this report).

This investigation was undertaken by a team from BL&A, comprising Justin Sullivan (Senior Ecologist) and Brett Macdonald (Senior Ecologist & Project Manager).

## 2. SOURCES OF INFORMATION

### 2.1. Existing information and definitions

#### 2.1.1. Existing information

The reports, planning scheme and development plans relating to the study area listed below were reviewed.

- Planning Maps Online (DELWP 2018a)
- Planning Schemes Online (DELWP 2018b)
- Regional Bushfire Planning Assessment – Gippsland Region (DPCD 2012)
- *Planning Permit Applications – Bushfire Management Overlay, Technical Guide September 2017 (DELWP 2017)*

#### 2.1.2. Definitions

The term ‘site’ is used herein to refer to the three properties at 951 Yannathan Road, 30 Glovers Road and 379 Lang Lang-Poowong Road, Nyora (see Figure 1). The term ‘study area’ refers to the site plus an area up to a distance of 150 metres from the property boundaries (Figure 4).

A wider area of land beyond the study area is termed the ‘landscape’ (Figure 6).

#### 2.1.3. Classified vegetation

For the purposes of a BMS, vegetation within the study area considered to potentially pose a bushfire threat is classified according to the definitions in Table 2.3 of AS 3959–2009. (Appendix 1). Under Clause 2.2.3 of AS 3959–2009, vegetation is divided into the classes listed below.

- Forest
- Woodland
- Shrubland
- Scrub
- Mallee/Mulga
- Rainforest
- Grassland

Vegetation posing a potential bushfire threat is referred to herein as ‘classified vegetation’.

AS 3959-2009 also details situations where modified or managed vegetation is classified as ‘low threat’.

### 2.2. Field methodology

The field assessment was conducted on the 21<sup>st</sup> and 22<sup>nd</sup> August 2017. During this assessment, the site was inspected on foot and vegetation in the surrounding study area was observed from the site and surrounding roads.

Sites in the study area found to contain classified vegetation were mapped. Mapping was undertaken through a combination of aerial photograph interpretation and ground-truthing using a hand-held GPS.

### **2.2.1. *Limitations of field assessment***

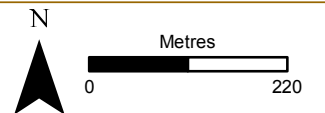
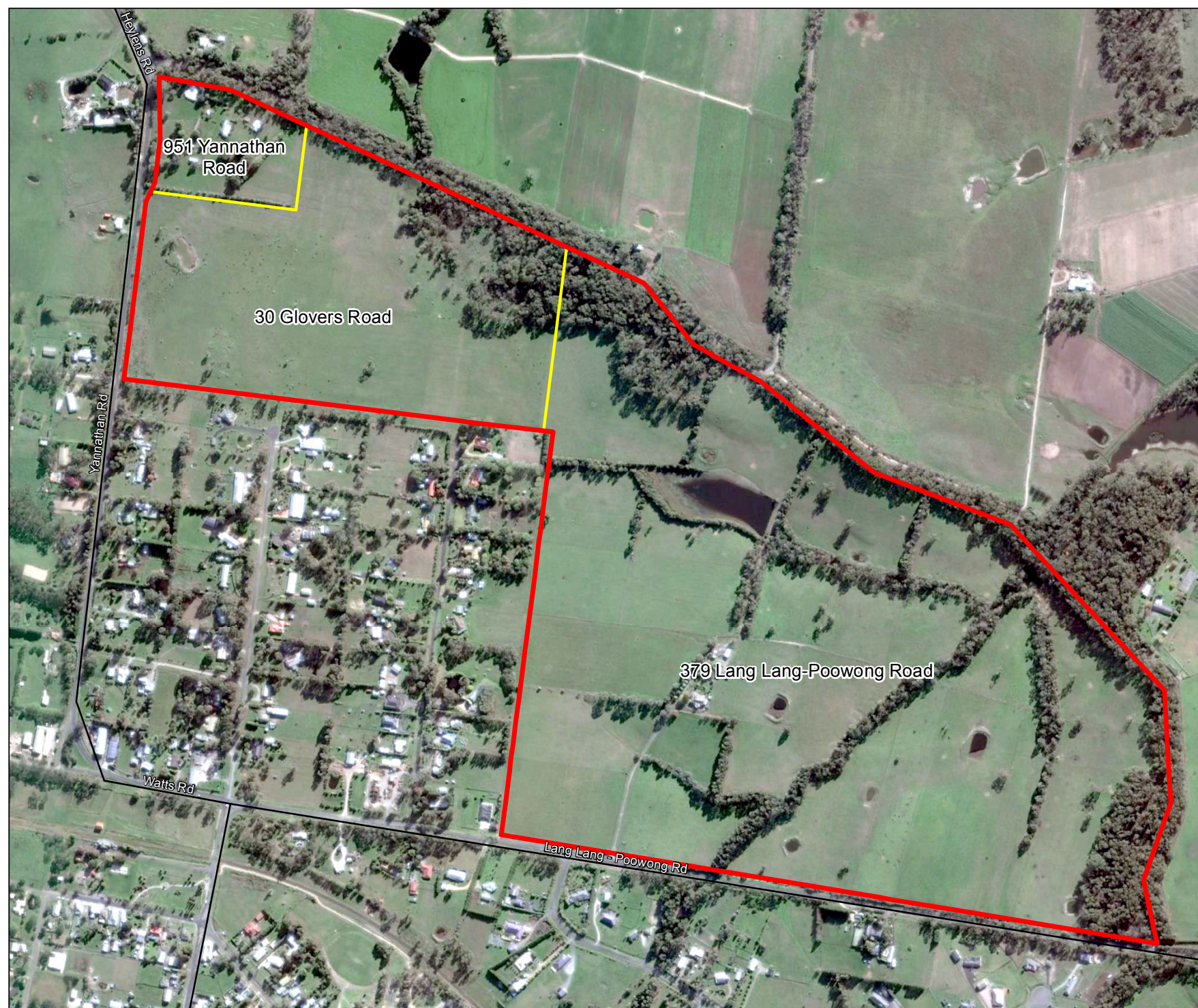
This bushfire assessment represents a snapshot of vegetation condition at the time of the field survey. Wherever appropriate, a precautionary approach has been adopted in the discussion of implications. That is, where insufficient evidence is available on the predicted behaviour of fire in a wildfire event, it is assumed that the most severe behaviours could occur. The implications under legislation and policy are considered accordingly.

**Figure 1: Site and property divisions**

**Project:** NYORA-POOWONG RD, NYORA  
**Client:** Beveridge Williams  
**Date:** 18/01/2018

**Legend**

 Site



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### 3. SITE AND LANDSCAPE ASSESSMENTS

#### 3.1. Bushfire hazard site assessment

##### 3.1.1. Site shape, dimensions, size, orientation and contours

The site is approximately 103 hectares of private land comprising three contiguous properties at 951 Yannathan Road, 30 Glovers Road and 379 Lang Lang-Poowong Road, Nyora, located immediately to the north east of the existing Nyora township in South Gippsland, Victoria. The site comprised three large farming lots, comprising the properties at 951 Yannathan Road, 30 Glovers Road and 379 Lang Lang-Poowong Road. The site was bounded by Lang Lang-Poowong Road to the south, Glovers Road to the north and north-east, and Yannathan Road to the west. Low density residential lots adjoined the study area to the south west.

A main drainage line ran diagonally through the site, with an offshoot running into a large dam. Several dead trees (stags) occurred in the western end of this dam, while the southern and western boundaries were lined with dense stands of Swamp Paperbark. Several additional small dams occurred throughout the property, all of which lacked fringing vegetation.

Treed sections of the site were well fenced (limiting grazing by cattle) and supported a range of vegetation types from Lowland Forest along the eastern and northern boundary of the study area to Swampy Riparian Woodland and Swamp Scrub along the drainage lines.

The topography of the site is presented in Figure 3, as 0.20 metre contours.

The study area lies within the Gippsland Plain bioregion and falls within the Port Phillip and Western Port CMA. It is within the South Gippsland local government area and is currently zoned Farming Zone (FZ) and General Residential Zone - Schedule 1 (GRZ1).

A portion of the property at 379 Lang Lang-Poowong Road, Nyora is covered by the Bushfire Management Overlay (BMO), as depicted in Figure 2 below. The entire study area occurs within the Bushfire Prone Area.

Photographs of the site and study area are provided in Appendix 2.

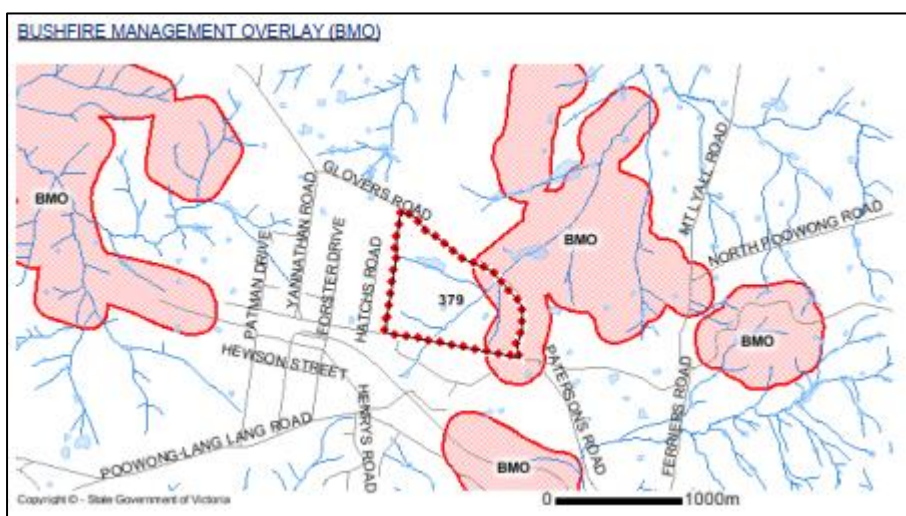


Figure 2: Extent of the BMO in the study area

**Figure 3: Site orientation and contours**



**DETAILS**

**LEGEND**

STAR PICKET	⊙
TOP OF BANK	+
TOE OF BANK	+
EXISTING SURFACE	---
CHANGE IN GRADE	---
TREE	+
DEAD TREE	+
TREE STAND/VEGETATION	+
OPEN DRAIN	+
POND/DAM	+
REINFORCED CONCRETE PIPE	+
BOX CULVERT	+
DRAINAGE - UNDERGROUND	+
SIDE ENTRY PIT	+
GRADED PIT	+
JUNCTION PIT	+
ENDWALL	+
CENTRELINE OF BITUMEN	+
EDGE OF BITUMEN	+
CENTRE OF FORMATION	+
LIP OF KERB/CHANNEL	+
INVERT OF KERB/CHANNEL	+
BACK OF KERB/CHANNEL	+
PATH	+
DRIVEWAY	+
TRACK	+
EDGE OF CONCRETE	+
SIGN	+
SHED	+
STRUCTURE - UNCLASSIFIED	+
LIGHT POLE	+
ELECTRICITY - POLE	+
ELECTRICITY - UNCLASSIFIED	+
ELECTRICITY PIT	+
ELECTRICITY - OVERHEAD	+
TELECOM PIT	+
TELECOM MARKER POST	+
SEWER PIT	+
STOP VALVE	+
WATER TROUGH	+
KILOMETER ROAD MARKER	+
WATER - UNCLASSIFIED	+
STAY	+
PIT - UNCLASSIFIED	+
APPROXIMATE TITLE BOUNDARY	+
FENCE	+
GATE	+
BOUNDARY - ROAD	+
BOUNDARY - EASEMENT	+
MAJOR CONTOUR	103
MINOR CONTOUR	103

**WARNING**  
BEWARE OF TITLE POSITIONS  
A DETAILED RE-ESTABLISHMENT SURVEY HAS NOT BEEN PROVIDED. IF TITLE BOUNDARIES ARE REQUIRED TO BE LOCATED ACCURATELY A FULL RE-ESTABLISHMENT SURVEY IS RECOMMENDED.

**WARNING**  
BEWARE OF TITLE POSITIONS  
SURROUNDING BOUNDARIES SHOWN GREY ARE DERIVED FROM VICMAP 2017 AND ARE NOT BASED ON SURVEY. THEY ARE SHOWN FOR ILLUSTRATION PURPOSES ONLY.

**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

DATE OF SURVEY: 25/08/2017  
CONTOURS ARE AT INTERVALS OF 0.20m AND LEVELS ARE TO THE AUSTRALIAN HEIGHT DATUM VIDE LANG LANG EAST PM 12 (RL 122.955 DATE: 11/10/2017)  
THE DIGITAL CADASTRAL MAP BASE IS ONLY APPROXIMATE AND HAS ONLY BEEN USED FOR ILLUSTRATION PURPOSES.

CLIENT: WALLIS WATSON  
DETAILS: FEATURE & LEVEL SURVEY

PROJECT:  
379 LANG LANG-POOWONG ROAD  
NYORA, VIC 3987

**BW** Beveridge Williams  
development & environment consultants  
Wonthaggi ph : 03 5672 1505  
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SURVEYORS REF.  
**0900659**  
VERSION: C  
OCTOBER 2017  
SHEET 1 OF 1

ORIGINAL SCALE: 12500  
SHEET SIZE: A1  
LENGTHS ARE IN METRES

SURVEYOR: MC	CHECKED: MC	MELWAYS REF: NA
DRAWN: MC		
CAD REFERENCE: 0900659-FEATURE & LEVEL SURVEY DWG		
VER:	BY:	AMENDMENTS:
B		
C	AM	DL20 SURVEY TO WEST ADDED
D		
		DATE:
		17/11/17

### **3.1.2. Classified vegetation, slopes and BAL assessment**

During the field assessment, two classified vegetation classes were identified as per the classification methods in the Australian Standard AS 3959 - 2009 (Appendix 1). Classified vegetation recorded in the study area is presented in Figure 4 and described below.

#### Forest

Forest vegetation was centred on the reserves of Glovers Road along the northern boundary of the site. This vegetation comprised a tall eucalypt canopy dominated by Narrow-leaf Peppermint, though also including Messmate Stringybark and Rough-barked Manna-gum. Mid layer comprises sparse layer of trees and shrubs. Ground layer is dense and comprises a high cover of tall Austral Bracken and Thatch Saw-Sedge.

#### Scrub

The natural drainage system in the centre of the 379 Lang Lang-Poowong Road property currently supports vegetation which was classified as forest and scrub. The forest vegetation was characterised by a remnant eucalypt canopy, comprising large old Swamp Gums. The understorey component comprised a mixture of remnant ground flora (sedges and rushes) as well as appropriate planted tree and shrub species which enhanced the patch (Blackwood, Silver Wattle, Burgan etc). The scrub vegetation was characterised by a dense canopy of Swamp Paperbark around the western and southern boundary of the large dam.

As part of development of this property, all of the existing forest and scrub vegetation will be removed to facilitate re-formation of the drainage system to accommodate storm-water runoff from adjacent housing and hardstand surfaces. The modified drainage system will form a drainage reserve and will be revegetated with tall graminoids (grasses and sedges) and occasional shrubs and small trees. Once mature, this vegetation will then be characteristic of scrub classified vegetation.

#### Slopes and BAL Assessment

Slopes under classified vegetation facing the proposed subdivision and defensible space distances for BAL-12.5 and BAL-19 is shown set out in a BAL assessment provided in Table 1 and presented in Figure 5. This demonstrates that defensible space for BAL-12.5 and BAL-19 can be achieved within the bounds of the properties.

Two areas of forest vegetation associated with Glovers Road, along the northern and eastern boundaries of the site (see Figure 5), will be managed to the standards listed in Appendix 6 to achieve the required defensible space from adjacent dwellings.

Two areas of scrub vegetation within the proposed drainage reserve will be managed as non-woody grassy vegetation to the standards listed in Appendix 6 to achieve the required defensible space from adjacent dwellings.

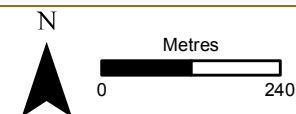
Classified vegetation not depicted in Figure 5 will be removed, thereby removing the bushfire fire hazard from consideration.

**Figure 4: Classified vegetation**

**Project:** NYORA-POOWONG RD, NYORA  
**Client:** Beveridge Williams  
**Date:** 4/10/2018

**Legend**

-  Study area
-  150m buffer
-  Forest
-  Scrub



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**Table 1: BAL assessment**

	N		N		E		E	
Vegetation class	Forest		Scrub		Forest		Scrub	
Effective slope	Upslope							
Slope under the classified vegetation	Upslope/0°	✓	Upslope/0°	✓	Upslope/0°	✓	Upslope/0°	✓
	Downslope							
	>0° to 5°		>0 to 5°		>0 to 5°		>0 to 5°	
	>5° to 10°		>5° to 10°		>5° to 10°		>5° to 10°	
	>10° to 15°		>10° to 15°		>10° to 15°		>10° to 15°	
	>15° to 20°		>15° to 20°		>15° to 20°		>15° to 20°	
	Defendable space distance from hazard required							
BAL-12.5	48 metres		27 metres		48 metres		27 metres	
BAL-19	35 metres		19 metres		35 metres		19 metres	

Table continued on next page

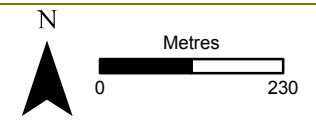
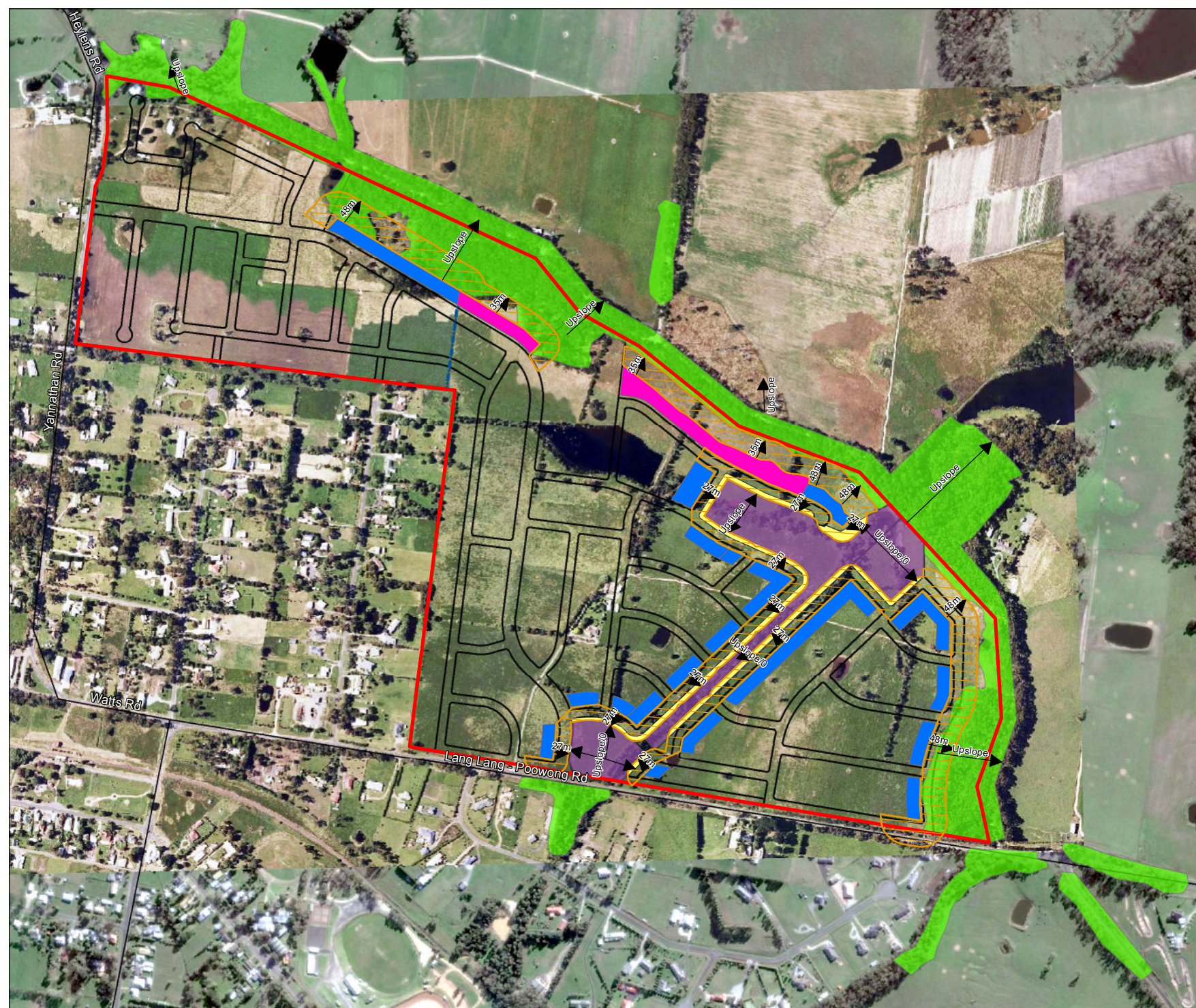
	S		S		W		W	
Vegetation class	Forest		Scrub		Forest		Scrub	
Effective slope	Upslope							
Slope under the classified vegetation	Upslope/0°	✓	Upslope/0°	✓	Upslope/0°	✓	Upslope/0°	✓
	Downslope							
	>0° to 5°		>0 to 5°		>0 to 5°		>0 to 5°	
	>5° to 10°		>5° to 10°		>5° to 10°		>5° to 10°	
	>10° to 15°		>10° to 15°		>10° to 15°		>10° to 15°	
	>15° to 20°		>15° to 20°		>15° to 20°		>15° to 20°	
	Defendable space distance from hazard required							
BAL-12.5	48 metres		27 metres		48 metres		27 metres	
BAL-19	35 metres		19 metres		35 metres		19 metres	

**Figure 5: Bushfire hazard site assessment**

**Project:** NYORA-POOWONG RD, NYORA  
**Client:** Beveridge Williams  
**Date:** 19/10/2018

**Legend**

- Study area
- Defendable space
- Managed grassy vegetation
- Building envelopes subject to BAL rating**
- BAL 12.5
- BAL 19
- Classified vegetation**
- Scrub (to be planted)
- Forest (current)



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### 3.2. Bushfire hazard landscape assessment

The study area lies within a Broader Landscape Type 1 which is defined by the following (DPCD 2014):

- There is little vegetation beyond 150 metres of the site (except grasslands and low-threat vegetation);
- Extreme bushfire behaviour is not possible;
- The type and extent of vegetation is unlikely to result in neighbourhood scale destruction of property; and
- Immediate access is available to a place that provides shelter from bushfire.

In Victoria the most dominant weather conditions are winds from the northwest or southwest although wind may travel in all directions – particularly in coastal areas.

Large areas of treed un-managed native vegetation (hundreds of hectares each) are situated to the west and south-west of the site, at distances of three kilometres and six kilometres respectively (see Figure 6). The greatest wildfire threat is from the west, where a wildfire travelling from this direction could pose a threat to the site, as this block of vegetation is linked to the township of Nyora by linear fingers of riparian treed vegetation. However, at the edge of the town the width of the treed vegetation is narrow enough that the fuel load would unlikely result in neighbourhood scale destruction of property.

A wildfire travelling from the south-west would be separated from the township and site by many kilometres of largely managed grassy pastoral paddocks, which would unlikely pose a serious threat.

Two small largely isolated blocks of un-managed native vegetation (less than 50 hectares each) are situated to the east of the site, at distances of two kilometres and less than one kilometre (see Figure 6). Wildfire originating from this vegetation is unlikely to pose a serious threat to the site, as the vegetation is largely isolated from the site by managed grassy pastoral paddocks.

The site has ready access to adjacent areas in the peri-urban setting of Nyora where fuel loads are managed in a minimum condition.





## Figure 6: Bushfire hazard landscape assessment

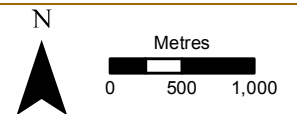
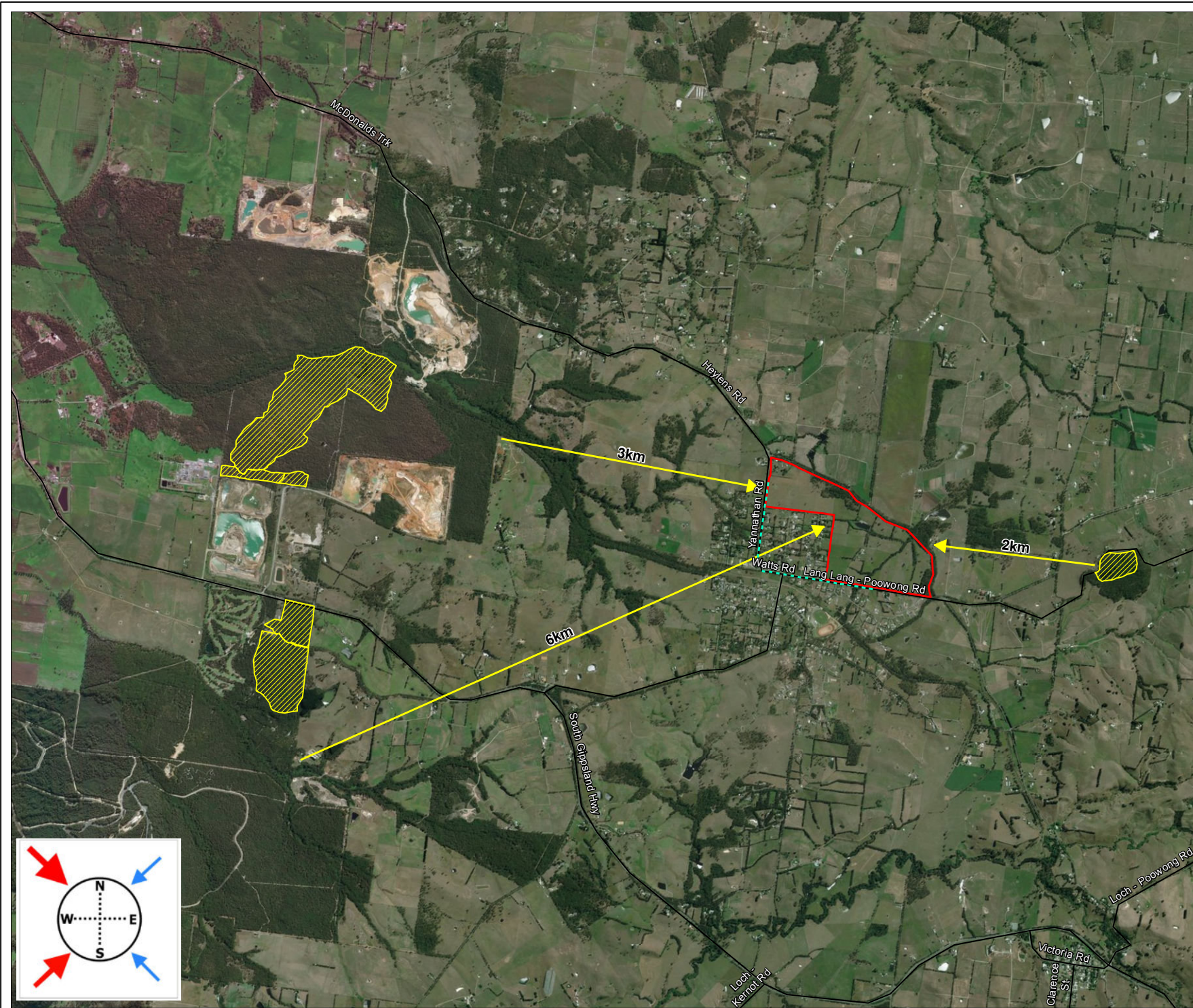
**Project:** NYORA-POOWONG RD, NYORA

**Client:** Beveridge Williams

**Date:** 4/10/2018

### Legend

-  Study area
-  Access from site to town centre
-  Potential fire runs
-  Fire history



**BL&A** 

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## 4. BUSHFIRE MANAGEMENT STATEMENT

This section evaluates the extent to which buildings on new lots would meet bushfire protection objectives adopted in the South Gippsland planning scheme (such as Clause 53.02), as follows:

- Landscape, siting and design
- Defendable space and construction
- Water supply and access
- Subdivision

Under Clause 53.02, bushfire protection objectives may be met through the implementation of:

- Approved measures (AM) – an approved measure meets the objective.
- Alternative measures (AltM) – an alternative measure may be considered where the responsible authority is satisfied that the objective can be met. The responsible authority may consider other unspecified alternative measures.

The following sections outline how the proposed subdivision responds to these adopted measures.

### 4.1. Landscape, siting and design

The landscape, siting and design bushfire protection objectives are as follows:

- Development is appropriate having regard to the nature of the bushfire risk arising from the surrounding landscape.
- Development is sited to minimise the risk from bushfire.
- Development is sited to provide safe access for vehicles, including emergency vehicles.
- Building design minimises vulnerability to bushfire attack.

**Table 2: Meeting the landscape, siting and design objectives of Clause 53.02**

Measure	Requirement	Bushfire protection measures adopted
AM 2.1	The bushfire risk to the development from the landscape beyond the site can be mitigated to an acceptable level.	The bushfire hazard landscape assessment defines the location as landscape type one; therefore, an application that meets the other objectives in Clause 53.02-4 (below) would mitigate the bushfire risk to an acceptable level.
AM 2.2	A building is sited to ensure the site best achieves the following: <ul style="list-style-type: none"> <li>The maximum separation distance between the building and the bushfire hazard.</li> <li>The building is in close proximity to a public road.</li> <li>Access can be provided to the building for emergency service vehicles.</li> </ul>	The proposed internal perimeter road facing the scrub hazard and the perimeter road facing the forest hazard in the south-east of the site would achieve the maximum separation of dwellings and buildings from this bushfire hazard. With the exception of the larger lots adjacent Glovers Road, along the northern boundary of the site, all lots will directly face a public road with access to a network of roads leading away from the hazard. Access for emergency services will be via public roads and driveways of less than 30 metres in length.
AM 2.3	A building is designed to be responsive to the landscape risk and reduce the impact of bushfire on the building.	Dwellings will avoid building design that allows for embers to lodge in re-entrant corners, complex roof lines, gaps between building materials and unenclosed underfloor spaces.

## 4.2. Buildings and defensible space

The buildings and defensible space bushfire protection objective is to ensure that:

- Defensible space and building construction mitigate the effect of flame contact, radiant heat and embers on buildings.

### 4.2.1. Meeting the objectives

The minimum width of defensible space required between any new dwellings that will be located within 50 metres of the bushfire hazard (larger lots adjacent Glovers Road, along the northern boundary of the site and lots adjacent the central drainage reserve hazard) will achieve the required defensible space distances, as detailed above in Section 3.1.2 and depicted on Figure 5.

Although contrary to the intent of Clause 13.02-1 of the State Planning Policy Framework, which requires a maximum construction rating of BAL-12.5 for dwellings in new settlements, it is understood that this should not apply within the land west of the drainage reserve in the 379 Lang Lang-Poowong Road property, which is zoned as General Residential Zone (GRZ). The reasoning behind this is provided in Appendix 7.

Consequently, many of the lots facing fire hazards in the GRZ land are proposed as being constructed to BAL-19, as depicted in Figure 6.

### 4.3. Water supply and access

The water supply and access bushfire protection objectives are to ensure that:

- A static water supply is provided to assist in protecting property if the land is covered by a BMO.
- Vehicle access is designed and constructed to enhance safety in the event of a bushfire.

**Table 3: Meeting the water and access objectives in the BMO area**

Measure	Requirement	Bushfire protection measures adopted
AM 4.1	<p>A building used for a dwelling (including an extension or alteration to a dwelling), a dependant person's unit, industry, office or retail premises is provided with:</p> <ul style="list-style-type: none"> <li>• A static water supply for firefighting and property protection purposes specified in Table 4 to Clause 53.02-3 if the land is covered by a BMO.</li> <li>• Vehicle access that is designed and constructed as specified in Table 5 to Clause 53.02-3.</li> </ul>	<p>A reticulated water supply will be provided that meets the requirements outlined in Appendix 4 only in the part of the subdivision which is covered by the BMO (Figure 2).</p> <p>Vehicle access within the subdivision will be designed according to the specifications outlined in Appendix 5. All driveways will be less than 30 metres in length and therefore Table 5 to Clause 53.02 does not apply.</p>
AM 4.2	Not applicable	Not applicable

### 4.4. Subdivision

The subdivision bushfire protection objectives adopted for this assessment are as follows:

- To provide lots that are capable of being developed in accordance with the objectives of Clause 53.02.
- To specify at the subdivision stage bushfire protection measures to develop a lot with a single dwelling on land zoned for residential or rural residential purposes.

Table 4: Meeting the subdivision objectives

Measure	Requirement	Bushfire protection measures adopted
<b>Approve measures</b>		
<b>AM 5.1</b>	<p>An application to subdivide land, other than where AM 5.2 applies, demonstrates that each proposed lot is capable of meeting:</p> <ul style="list-style-type: none"> <li>The defendable space in accordance with Table 2 Columns A, B or C and Table 6 to Clause 53.02-3.</li> <li>The approved measures in Clause 53.02-2.1 and Clause 53.02-2.3.</li> </ul>	<p>All buildings used for dwellings (including an extension or alteration to a dwelling), a dependant person's unit, industry, office or retail premises will be located at distances greater than the minimum setbacks for BAL-12.5 (Column A, Table 2 to Clause 53.02-3) and BAL-19 (Column B, Table 2 to Clause 53.02-3) from all bushfire hazards affecting the subdivision (see Section 3.1.2 and Figure 5).</p> <p>Approved measures in Clause 53.02-2.1 and Clause 53.02-2.3 are met (see Section 4.1)</p>
<b>AM 5.2</b>	<p>An application to subdivide land zoned for residential or rural residential purposes must be accompanied by a plan that shows bushfire protection measures specified for the permit area.</p>	<p>Provided in Figure 5.</p>
<b>AM 5.3</b>	<p>An application to subdivide land to create 10 or more lots provides a perimeter road adjoining the hazardous vegetation to support firefighting.</p>	<p>This will be partly achieved through proposed internal perimeter roads facing the scrub hazard and the perimeter road facing the forest hazard in the south-east of the site.</p> <p>The larger lots adjacent Glovers Road, along the northern boundary of the site will not be separated from the forest bushfire hazard by a perimeter road.</p>
<b>AM 5.4</b>	<p>A subdivision manages the bushfire risk to future development from existing or proposed landscaping, public open space and communal areas.</p>	<p>Landscaping will address the CFA publication <i>Landscaping for Bushfire</i> (cfa.vic.gov.au).</p>

## 5. REFERENCES

- Committee FP-020. Australian Standards AS 3959-2009. Construction of Buildings in bushfire-prone areas. Standards Australia, Sydney, NSW.
- Country Fire Authority 2006. Requirements for water supplies and access for subdivisions in residential 1 and 2 and township zones. Country Fire Authority, Burwood East, Victoria.
- DELWP 2018a, Planning Maps Online, Victoria State Government, viewed 27<sup>th</sup> March 2018, <<http://services.land.vic.gov.au/maps/pmo.jsp>>.
- DELWP 2018b, Planning Schemes Online, Victoria State Government, viewed 27<sup>th</sup> March 2018, <<http://planningschemes.dpcd.vic.gov.au/>>.
- Department of Environment, Land, Water and Planning (DELWP) 2017, *Planning Permit Applications – Bushfire Management Overlay, Technical Guide September 2017*, Victoria State Government.
- Department of Planning and Community Development (DPCD) 2012, *Regional Bushfire Planning Assessment - Gippsland Region*, Department of Planning and Community Development, Melbourne.

## Appendix 1: Table 3 from AS 3959 - 2009

## CLASSIFICATION OF VEGETATION

Vegetation classification (see Tables 2.4.2–2.4.5)	Vegetation type	Figure No. in Fig. 2.3 and Figs 2.4(A) to 2.4(G)	Description
A Forest	Tall open forest	01	Trees over 30 m high; 30–70% foliage cover (may include understorey ranging from rainforest and tree ferns to low trees and tall shrubs). Found in areas of high reliable rainfall. Typically dominated by eucalypts.
	Tall woodland	02	
	Open forest	03	Trees 10–30 m high; 30–70% foliage cover (may include understorey of sclerophyllous low trees and tall scrubs or grass). Typically dominated by eucalypts.
	Low open forest	04	
	Pine plantation	Not shown in Figure 2.3	Trees 10–30 m in height at maturity, generally comprising Pinus species or other softwood species, planted as a single species for the production of timber.
B Woodland	Woodland	05	Trees 10–30 m high; 10–30% foliage cover dominated by eucalypts; understorey low trees to tall shrubs typically dominated by Acacia, Callitris or Casuarina.
	Open woodland	06	
	Low woodland	07	Low trees and shrubs 2–10 m high; foliage cover less than 10%. Dominated by eucalypts and Acacias. Often have a grassy understorey or low shrubs. Acacias and Casuarina woodlands grade to Atriplex shrublands in the arid and semi-arid zones.
	Low open woodland	08	
	Open shrubland	09	
C Shrubland	Closed heath	10	Found in wet areas affected by poor soil fertility or shallow soils. Shrubs 1–2 m high often comprising Banksia, Acacia, Hakea and Grevillea. Wet heaths occur in sands adjoining dunes of the littoral (shore) zone. Montane heaths occur on shallow or water-logged soils.
	Open heath	11	
	Low shrubland	12	Shrubs <2 m high; greater than 30% foliage cover. Understoreys may contain grasses. Acacia and Casuarina often dominant in the arid and semi-arid zones.
D Scrub	Closed scrub	13	Found in areas wet enough to support eucalypt trees, which are affected by poor soil fertility or shallow soils. >30% foliage cover. Dry heaths occur in rocky areas. Shrubs 1–2 m high. Typical of coastal wetlands.
	Open scrub	14	Trees greater than 2 m high, 10–30% foliage cover. Dominated by eucalypts or co-dominant Melaleuca and Myoporum with a mixed understorey.
E Mallee/ Mulga	Tall shrubland	15	Vegetation dominated by shrubs (especially eucalypts and Acacias) with a multi-stemmed habit; usually greater than 2 m in height <30% foliage cover. Understorey of widespread to dense low shrubs (Acacia) or sparse grasses.
F Rainforest	Tall closed forest	16	Trees 10–40 m in height; >90% foliage cover; understorey may contain a large number of species with a variety of heights.
	Closed forest	17	
	Low closed forest	18	
G Grassland (unmanaged) (Appears in Table 2.4.4 FDI 50 only (see Note 1))	Low open shrubland	19	All forms, including situations with shrubs and trees, if the overstorey foliage cover is less than 10%.
	Hummock grassland	20	
	Closed tussock grassland	21	
	Tussock grassland	22	
	Open tussock	23	
	Sparse open tussock	24	
	Dense sown pasture	25	
	Sown pasture	26	
	Open herbfield	27	
	Sparse open herbfield	28	



## Appendix 2: Photographs of site and classified vegetation



Photo 1: Typical forest classified vegetation along the northern and eastern boundaries of the site



Photo 2: Typical forest classified vegetation along the northern and eastern boundaries of the site

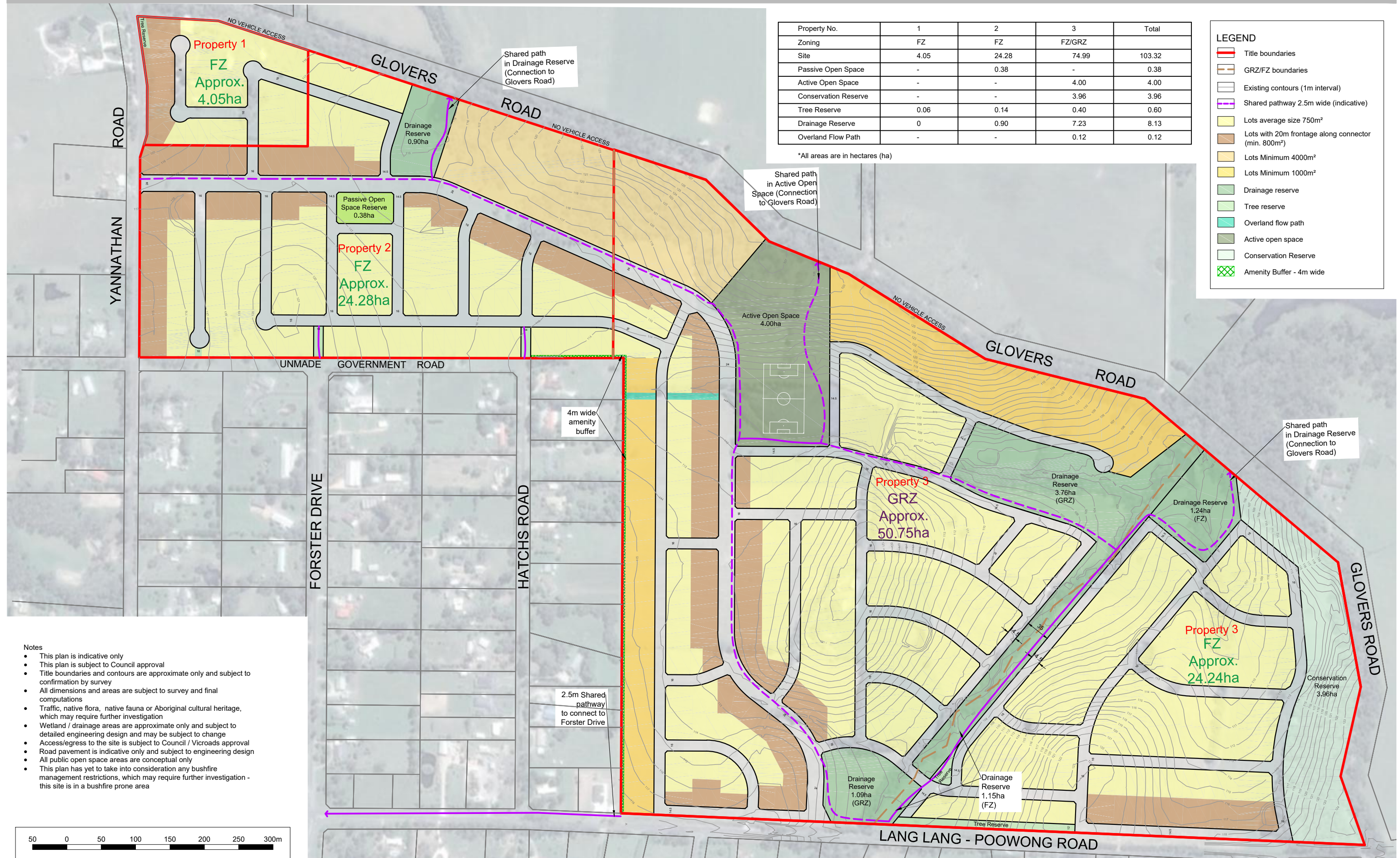


Photo 3: Typical forest classified vegetation along the northern and eastern boundaries of the site



Photo 4: Typical forest classified vegetation along the northern and eastern boundaries of the site

## Appendix 3: Subdivision Concept Plan



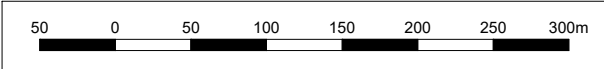
Property No.	1	2	3	Total
Zoning	FZ	FZ	FZ/GRZ	
Site	4.05	24.28	74.99	103.32
Passive Open Space	-	0.38	-	0.38
Active Open Space	-	-	4.00	4.00
Conservation Reserve	-	-	3.96	3.96
Tree Reserve	0.06	0.14	0.40	0.60
Drainage Reserve	0	0.90	7.23	8.13
Overland Flow Path	-	-	0.12	0.12

\*All areas are in hectares (ha)

**LEGEND**

- Title boundaries
- GRZ/FZ boundaries
- Existing contours (1m interval)
- Shared pathway 2.5m wide (indicative)
- Lots average size 750m<sup>2</sup>
- Lots with 20m frontage along connector (min. 800m<sup>2</sup>)
- Lots Minimum 4000m<sup>2</sup>
- Lots Minimum 1000m<sup>2</sup>
- Drainage reserve
- Tree reserve
- Overland flow path
- Active open space
- Conservation Reserve
- Amenity Buffer - 4m wide

- Notes**
- This plan is indicative only
  - This plan is subject to Council approval
  - Title boundaries and contours are approximate only and subject to confirmation by survey
  - All dimensions and areas are subject to survey and final computations
  - Traffic, native flora, native fauna or Aboriginal cultural heritage, which may require further investigation
  - Wetland / drainage areas are approximate only and subject to detailed engineering design and may be subject to change
  - Access/egress to the site is subject to Council / Vicroads approval
  - Road pavement is indicative only and subject to engineering design
  - All public open space areas are conceptual only
  - This plan has yet to take into consideration any bushfire management restrictions, which may require further investigation - this site is in a bushfire prone area



**Indicative Development Plan**  
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Version	Date	Description	Drafted	Approved	Version	Date	Description	Drafted	Approved
06	21.11.2014	Response to Council comments							
07	24.11.2014	Response to Council comments							
08		Plan amended	TG	DRAFT					
09	03.09.2018	Plan amended	TG/KT	DRAFT					
10	21.09.2018	Plan amended	TG						

Date: 21.09.2018  
 Version No: 10  
 Job No: 0900659  
 Scale (A1): 1:2500  
 (A3): 1:5000

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**Appendix 4: Fire Authority water supply requirements (from Clause 53.02)**

Unless otherwise agreed in writing by the relevant fire authority, the water supply must:

- Be stored in an above ground water tank constructed of concrete or metal.
- Have all fixed above ground water pipes and fittings required for firefighting purposes made of corrosive resistant metal.
- Include a separate outlet for occupant use.

Where a 10,000 litre water supply is required, fire authority fittings and access must be provided as follows:

- Be readily identifiable from the building or appropriate identification signage to the satisfaction of the relevant fire authority.
- Be located within 60 metres of the outer edge of the approved building.
- The outlet/s of the water tank must be within 4 metres of the accessway and unobstructed.
- Incorporate a separate ball or gate valve (British Standard Pipe (BSP 65 millimetre) and coupling (64 millimetre CFA 3 thread per inch male fitting).
- Any pipework and fittings must be a minimum of 65 millimetres (excluding the CFA coupling).

**Appendix 5: Vehicle access design and construction (from Table 5 to Clause 53.02)**

Where the length of access is greater 100 metres, the following design and construction requirements apply:

- All-weather construction.
- A load limit of at least 15 tonnes.
- Provide a minimum trafficable width of 3.5 metres.
- Be clear of encroachments for at least 0.5 metres on each side and at least 4 metres vertically.
- Curves must have a minimum inner radius of 10 metres.
- The average grade must be no more than 1 in 7 (14.4%) (8.1°) with a maximum grade of no more than 1 in 5 (20%) (11.3°) for no more than 50 metres.
- Dips must have no more than a 1 in 8 (12.5 per cent) (7.1 degrees) entry and exit angle.



## Appendix 6: Defendable space management requirements

Taken from Table 6 to Clause 53.02-3:

- Grass must be short cropped and maintained during the declared fire danger period.
- All leaves and vegetation debris must be removed at regular intervals during the declared fire danger period.
- Within 10 metres of a building, flammable objects must not be located close to the vulnerable parts of the building.
- Plants greater than 10 centimetres in height must not be placed within 3m of a window or glass feature of the building.
- Shrubs must not be located under the canopy of trees.
- Individual and clumps of shrubs must not exceed 5 sq. metres in area and must be separated by at least 5 metres.
- Trees must not overhang or touch any elements of the building.
- The canopy of trees must be separated by at least 5 metres.
- There must be a clearance of at least 2 metres between the lowest tree branches and ground level.

## Appendix 7: Statement on reasoning behind waiver on BAL 12.5 limitation

Regarding the following Clause 13.02 (Settlement Planning) requirement:

*‘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’.*

It is our understanding that within the land at the site which is zoned General Residential Zone (GRZ), dwellings should not be limited to a construction rating of BAL-12.5. The reasoning behind this is that the Development Plan (prepared in accordance with Schedule 10 to the Development Plan Overlay in the South Gippsland Planning Scheme) is a statutory planning document (not a strategic planning document) and therefore the above limitation is not relevant to the portion of land already zoned GRZ. This is based on the following:

- The purpose of Development Plan is *‘to identify areas which require the form and conditions of future use and development to be shown on a development plan before a permit can be granted to use or develop the land’*. The future form and conditions of the land is informed by the overarching Strategic Framework Plan which in this case is the Nyora Structure Plan which is a reference document under clause 21.16 of the South Gippsland Planning Scheme. Further to this, Clause 21.15-5 of the South Gippsland Planning Scheme 2 incorporates the Nyora Land Use Framework Plan which identifies the future land use of the subject land. Since the subject land has been rezoned and the Development Plan schedule applied, it is submitted that the strategic work for the zoned portion of land has already been actioned and completed.
- In addition to the above, the Development Plan Overlay Provisions identify where the strategic provisions and documents applying to the land occur within the South Gippsland Planning Scheme. Specifically, the overlay notes, *‘Refer to the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement, for strategies and policies which may affect the use and development of land’*.