## Regional Planning & Design Pty Ltd

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# Bushfire Management Statement

4215 Pyrenees Hwy Flagstaff Ref No. 20.35

Prepared by Regional Planning & Design Pty Ltd

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## **Version Control**

Report Version	Description	Date Completed	Issued to
A	Issued as a draft for discussion	27/4/2024	Client
В	Issued as a final version with the proposed subdivision	14/3/2025	Client

## Disclaimer

This report has been made with careful consideration and with the best information available to Regional Planning and Design Pty Ltd at the time of writing. Before relying on information in this report, users should evaluate the accuracy, completeness and relevance of the information provided for their purposes. Regional Planning and Design Pty Ltd do not guarantee that it is without flaw or omission of any kind and therefore disclaim all liability for any error, loss or other consequence that may arise from you relying on any information in this report.

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. It is also recommended CFA's Landscaping for Bushfire: Garden design and plant selection be read prior to developing the garden

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 <u>http://www.cfa.vic.gov.au</u> or through your local CFA Regional office.

# 1 SUMMARY

Summary	
Date of site visit:	18/04/2024
The proposal	3 lot subdivision. Construction of a shed on the proposed lots 2 and 3 and lot 3 is proposed for storage
Broad landscape setting (Technical Guide Planning Permit Applications – Bushfire Management Overlay)	3
Static Water Supply requirements	10,000 litres in non combustible tanks on each lot with CFA access to outlets
Access requirements can be met	Yes
Defendable Space requirements can be met	BAL 29 within boundaries
Proposed BAL construction level	BAL 29
Is native vegetation removal required:	Yes

# 2 INTRODUCTION

This Bushfire Management Statement (BMS) has been prepared to enable the Beaton Investment Trust to respond to the requirements of Clause 44.06 *Bushfire Management Overlay* (known from this point on as Clause 44.06), and associated Clause 53.02 *Bushfire Protection: Planning Requirements* (known from this point on as Clause 53.02) for the proposed subdivision and construction of sheds at 4215 Pyrenees Hwy Flagstaff.

## METHODOLOGY

Clause 53.02-4 applies to this application as the site is zoned Industrial

The BMS is in two parts

Part 1 Site description, hazard assessment and locality description

Part 2 A Bushfire Management Statement describing how the proposed development responds to the requirements in Clause 53.02 and 44.06.

# 3 ZONING AND OVERLAYS

Clause Number	Name
33.01	Industrial Zone
44.06	Bushfire Management Overlay
53.02	Planning for Bushfire
13.02- 1 S	Bushfire Planning
42.01	Environmental Significance Overlay
44.01	Erosion Management Overlay
44.02	Salinity Management Overlay



Figure 1 Zoning

# 4 LOCATION

The site is located to the west of Carisbrook, approximately 4 kilometres to the east of the town centre of Maryborough. There are large areas of woodland to the north and south west of the site. This will be discussed further in Section 8 of this report.

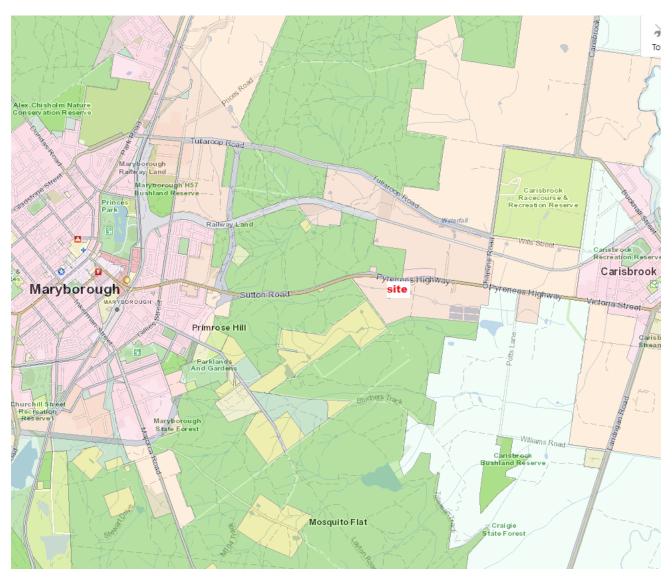


Figure 2 Location

# 5 SITE DESCRIPTION

Site shape, dimensions, size , existing use and buildings and works				
The shape of the site is:	Rectangular with Irregular north east corner			
The site has a total area of:	1.14 ha			
The current use of the site is	Vacant			
The buildings or works located on the site are:	Nil			
Site topography	The site has a slight overall fall of 1 degree to the east.			
Site vegetation	The site is covered in mostly managed and modified vegetation (photos 1 to 5) with a row of pine trees with some scattered eucalypts in the southern area			

## Site Photo



Photo 1 Looking north across the northern part of the site towards the proposed shed sites on lots 2 and 3

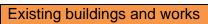




Photo 2 Looking south from the northern part of the site across proposed lot 3



Photo 3 Looking east along a row of pine trees in the southern part of the site



Photo 5 Looking south west from the north east corner of the site

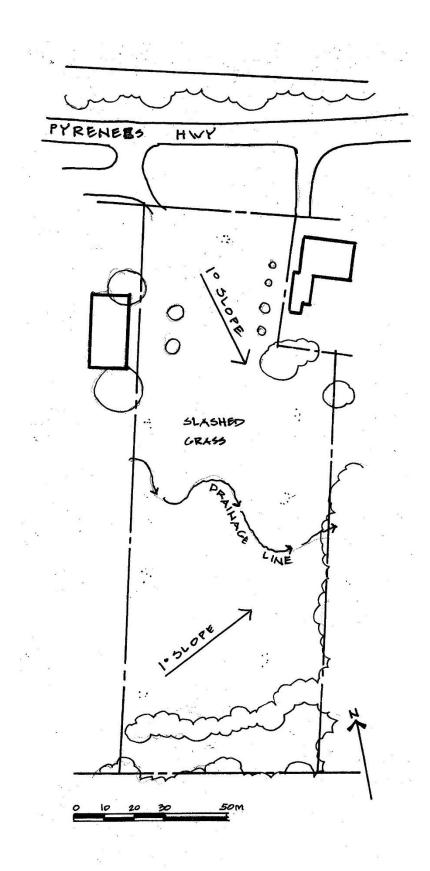


Figure 3 Existing conditions plan



Figure 3 Site Air Photo

# 6 ACCESS

Access to the property is from the Pyrenees Highway on the north boundary (Photo 6). This provides good access through open areas of woodland and grassland to the town of Carisbrook to the east where there is a Neighbourhood Safer Place. There is gravel entry road to the site providing all weather access (photo 7)



Photo 6 Looking east along the Pyrenees Highway to the north of the site



Photo 7 Looking west along the entry road towards the Pyrenees Highway on the north west corner of the site

# 7 BUSHFIRE HAZARD SITE ASSESSMENT

There is modified vegetation on private land immediately surrounding the site (photos 8 to 11 and 17). There are areas of fragmented woodland to the east, west and south (photos 12 to 15) with large areas of woodland to the north (photo 16).



Figure 4 150 metre assessment air photo



Photo 8 Looking north towards dwellings surrounded by modified vegetation to the north east of site



Photo 9 Looking south east to buildings surrounded by modified vegetation to the north west of site





Photo 10 Looking north west across grassland on industrial land to the west of the site



Photo 11 Looking south west through modified vegetation to the south west of the site

Surrounding Landscape Photos



Photo 12 Looking south across woodland and modified vegetation to the south of the site



Photo 13 Looking south east across woodland towards modified vegetation to the south east of the site



Photo 14 Looking east across woodland and modified vegetation to the east of the site



Photo 15 Looking south east across woodland and modified vegetation to the east of the site

## Surrounding Landscape Photos



Photo 16 Looking north east through woodland with the canopy cover of forest to the north of the site beyond the Pyrenees Highway



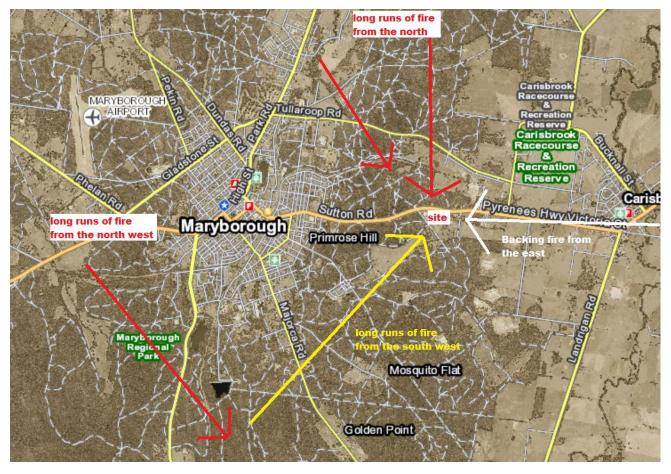
Photo 17 Looking south east across modified vegetation to the north east of the site.

# 8 BUSHFIRE HAZARD LANDSCAPE ASSESSMENT

The surrounding landscape corresponds to Broader Landscape Type 3 as assessed in accordance with the *Technical Guide*, *Planning Permit Applications – Bushfire Management Overlay* (DELWP, 2017).

The site could be vulnerable to long runs of grassfire from the north and 3 to 5 kilometre long runs of fire from the north and north west through woodland and runs of fire from the south west following a wind change, which often occurs on high fire risk days in summer. Woodland and grassland to the east is less likely to pose a major threat as hot winds in summer are not usually experienced from this direction .

An approaching bushfire is likely to cause ember attack ,increasing the fire risk. It is recommended the owners maintain land to the property boundaries to minimize ground fuel build up.



**FIGURE 6 BUSHFIRE CONTEXT PLAN** 



FIGURE 7 BUSHFIRE LOCAL CONTEXT PLAN

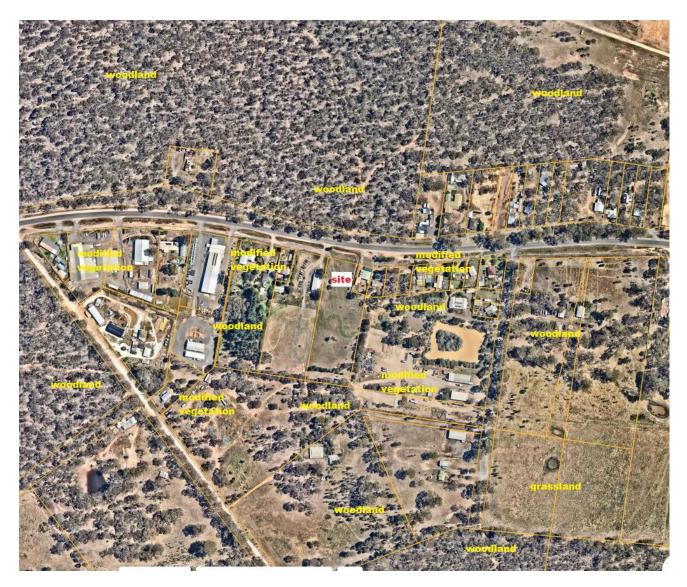
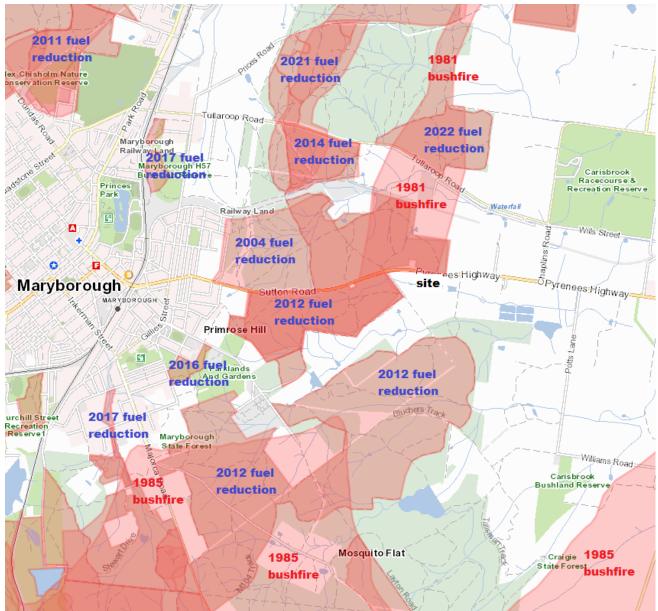
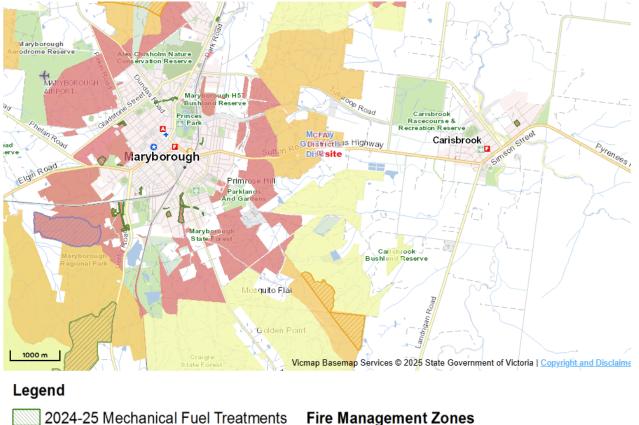


FIGURE 8 BUSHFIRE NEIGHBOURHOOD CONTEXT PLAN



## Figure 9 Bushfire History Map

The Fire History Map above shows fire has regularly occurred within the surrounding landscape. There have been fuel reduction burns to the north west and the south west. There are also planned burns to the north west and south west and woodland on public land around the site is part of the Fire Operations Plan which aims to manage fuel loads and reduce the fire risk (See Figure 10). In summary, the site is vulnerable to fire . This needs to be considered in managing the site, maintaining defendable space within property boundaries which will help reduce the fire risk.



	The Management Zones
2024-27 New Strategic Fuel Breaks	1 - Asset Protection Zone
Planned Burns	2 - Bushfire Moderation Zone
2024-2025	3 - Landscape Management Zone
2025-2026	4 - Planned Burn Exclusion Zone
2026-2027	CFA District Boundaries
	DELWP District Boundaries

Figure 10 Planned Burns And Fire Management Areas

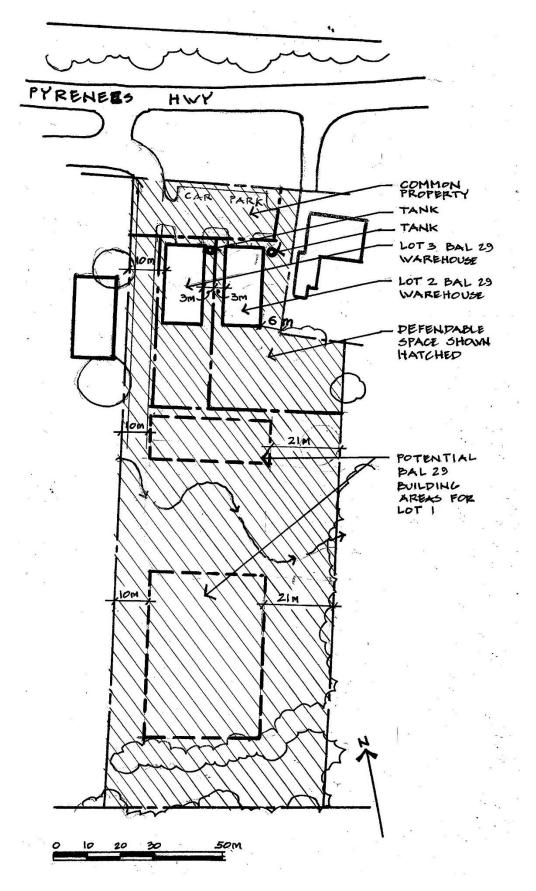


Figure 11 Defendable space, access and water supply

#### SCHEDULE OF BUSHFIRE PROTECTION MEASURES Defendable Space

The area of defendable space is shown hatched from the edges of the buildings to the property boundaries, where vegetation (and other flammable materials) will be modified and managed in accordance with the following requirements:

- 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.

## **Construction standards**

The buildings will be designed and constructed a minimum Bushfire Attack Level of (BAL) 29.

## Water supply

A tank on site will hold 10 000 litres of effective water supply for fire fighting purposes which meets the following requirements:

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.

Be readily identifiable from the building or appropriate identification signs 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).

## Access

A drive way of all-weather construction will meet the following standards

A load limit of at least 15 tonnes with 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.

As the length of access drive to lot 1 is greater than 100 mettes, a turning circle with a minimum radius of eight metres or the provision of other vehicle turning heads (such as a T or Y head) which meet the specification of Austroad Design for an 8.8 metre Service Vehicle will be provided.

# 9 BUSHFIRE MANAGEMENT STATEMENT

Clause 53.02 contains a range of sub clauses with objectives, approved measures (AM), alternative measures (AltM) and decision guidelines. The table below details which clauses are relevant to this application. The following section demonstrates how the requirements have been met for the relevant standards.

Relevant clauses and measures applicable to the proposed development.

Clause	Approved Measure	Achieved / Applicable	Justification
Clause 53.02-3 –	AM 1.1	Not Applicable	The site is zoned industrial, so not
Dwellings in existing settlements –	AM 1.2	Not Applicable	applicable.
Bushfire protection objective	AM 1.3	Not Applicable	
Clause 53.02-4.1	AM 2.1	Applicable	This development addresses this clause.
Landscape, siting and design	AM 2.2	Applicable	
objectives	AM 2.3	Applicable	
Clause 53.02-4.2 Defendable space	AM 3.1	Applicable	This development addresses this clause.
and construction objectives	AM 3.2	Not Applicable	This proposal is for a shed so N A
objectives	AltM 3.3	Not Applicable	Defendable space is contained within property boundaries
	AltM 3.4	Not Applicable	
	AltM 3.5	Not Applicable	
	AltM 3.6	Not Applicable	
Clause 53.02-4.3	AM 4.1	Not Applicable	
Water supply and access objectives	AM 4.2	Applicable	
Clause 53.02-4.4 Subdivision	AM 5.1	Applicable	This development must address this clause.
objectives	AM 5.2	Not Applicable	The site is zoned industrial
	AM 5.3	Applicable	This development must address this clause.
	AM 5.4	Not Applicable	Less than 10 lots are proposed
	AM 5.5	Not Applicable	

## 53.02-4.1 Landscape, siting and design objectives

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.

Approved	Requirement				
Measure					
AM 2.1	The bushfire risk to the development from the landscape beyond the site can be mitigated to an acceptable level. Response:				
	The site is located to the south and east of woodland on public and private land. Public land is part of the Fire Operations Plan which aims to manage woodland to reduce the fire risk.				
	Land to the south, east and west is managed industrial land which helps reduce the broadscale landscape risk.				
AM 2.2	<ul> <li>A building is sited to ensure the site best achieves the following:</li> <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> </ul>				
	<ul> <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> <li>Response:</li> </ul>				
	The proposal sites the sheds in the northern part of the lot close to the Pyrenees Highway. There is separation of more than 60 metres from native vegetation to the north				
	The sheds are located within 90 metres of a sealed public road				
	Access requirements can be met. The proposed gravel surface areas will provide truck access onto the site passing through managed land				
AM 2.3	A building is designed to be responsive to the landscape risk and reduce the impact of bushfire on the building				
	Response:				
	The buildings will be required to meet a BAL of 29. The construction requirements minimise the ability for ember penetration and radiant heat exposure to compromise the building integrity.				

## 9.1.1 53.02-2.2 Defendable space and construction objective

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

Approved Measure	Requirement				
AM 3.1	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 defendable space in accordance with:				
	Table 2 Columns A, B or C and Table 6 to Clause 53.02 -5 wholly within the title boundaries of the land; or				
	If there are significant siting constraints, Table 2 Column D and Table 6 to Clause 53.02 -5.				
	The building is constructed to the bushfire attack level that correspond to the defendable space provided in accordance with Table 2 to Clause 53.02 -5.				
	Response:				
	The buildings provide BAL 29 defendable space in accordance with Column C and the final row of Table 2 to Clause 53.02-5. This has been set based on the hazard being forest on an upslope to the north (25m) and modified vegetation in all other directions. Defendable space is contained within the property boundaries				
	The closest forest is more than 60 metres to the north of the site				

## 9.1.2 53.02-2.3 Water supply and access objectives

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

A	Device west
Approved	Requirement
Measure AM 4.2	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:
	A static water supply for fire fighting and property protection purposes specified in Table 4 to Clause 53.02 -5.
	Vehicle access that is designed and constructed as specified in Table 5 to Clause 53.02 -5.
	The water supply may be in the same tank as other water supplies provided that a separate outlet is reserved for fire fighting water supplies
	Response:
	A static water supply will be provided using a proposed 10 000 litre steel or concrete tank which has a CFA compatible outlet positioned so that a fire truck can drive to within 4 metres of the outlet. The outlet will be located within 60 metres of all parts of the buildings
	Access requirements are met. A 3.5 metre wide access way capable of carrying a 15 ton truck with 4m vertical and 4.5m horizontal clearance is provided by using proposed gravel surface areas.

## 53.02-4.4 Subdivision objectives

To provide lots that are capable of being developed in accordance with the objectives of Clause 53.02.

To specify at the subdivision stage before protection measures to develop a lot with a single dwelling on land zoned for residential or rural residential purposes.

Approved	Requirement
Approved Measure	
AM 5.1	An application to subdivide land, other than where AM 5.2 applies, demonstrates that each proposed lot is capable of meeting: The defendable space in accordance with Table 2 Columns A, B or C and Table 6 to Clause 53.02-5. The approved measures in Clause 53.02-4.1 and Clause 53.02-4.3.
	Response:
	The buildings have been sited to achieve BAL 29 defendable in accordance with Columns C and the final row of Table 2 to Clause 53.02-5. On Lot 3 it will be possible to construct buildings to meet the BAL 29 set back requirements.
	As vegetation to the west and east is considered low threat and modified defendable space will extend to the property boundaries in accordance with the final row of Table 2 to Clause 53.02-5.
	Water supply and access requirements can be met, as previously described under AM 4.1.
AM 5.4	A subdivision manages the bushfire risk to future development form existing or proposed landscaping, public open space and communal areas.
	Response:
	The proposed landscape treatment of the access road verges and car park on common land will need to be developed and managed to achieve defendable space standards (described in Appendix 1) to minimize fire risk

# 10 CONCLUSION

## 53.02 -4.5 Decision guidelines

The proposed development meets the decision guidelines as follows:

The State Planning Policy Framework (SPPF) outlines the broad framework for bushfire protection policy and provisions in the planning scheme. The following policy is included in this;

## Clause 13.02-1 S Bushfire planning

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

Strategies Protection of human life Give priority to the protection of human life by:

Prioritising the protection of human life over all other policy considerations.

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.

Reducing the vulnerability of communities to bushfire through the consideration of bushfire risk in decision making at all stages of the planning process

This proposal has been prepared having regard for this over arching policy

The bushfire hazard landscape and site assessment, and bushfire management statement submitted with the application meets the objectives of Clause 53.02.

Land surrounding the site is a mix of woodland, managed industrial and residential land, grassland and modified vegetation. The proper establishment and maintenance of defendable space on site will reduce the overall bushfire risk.

The proposed measures can be practically implemented and maintained in conjunction with the proposed use of the land for industrial purposes.

# 11 REFERENCES

CFA (2014). *Vegetation Classes: Victorian Bushfire Management Overlay*. Country Fire Authority, Burwood East, Victoria.

CFA (2011). *Landscaping for Bushfire: Garden design and plant selection*. Country Fire Authority, Burwood East, Victoria.

CFA (2012). FSG LUP 0002 Requirements for water supply and access in the Bushfire Management Overlay (BMO). Country Fire Authority, Burwood East, Victoria.

Standards Australia (2009). *AS 39359-2009 Construction of Buildings in Bushfire Prone Areas.* Standards Australia, North Sydney, New South Wales.

DELWP (2017) *Planning Permit Applications – Bushfire Management Overlay Technical Guide* Department of Environment, Land, Water and Planning

DELWP (2018) *Clause 13.02-1S Bushfire planning* Department of Environment, Land, Water and Planning http://planning-schemes.delwp.vic.gov.au/schemes/vpps/13 02-1S.pdf

DELWP (2018) *Clause 44.06 Bushfire Management Overlay* Department of Environment, Land, Water and Planning <u>http://planning-schemes.delwp.vic.gov.au/schemes/vpps/44\_06.pdf</u>

DELWP (2018) *Clause 53.02 Bushfire Planning* Department of Environment, Land, Water and Planning http://planning-schemes.delwp.vic.gov.au/schemes/vpps/53\_02.pdf

DELWP (2018) *Clause 52.12 Bushfire Protection Exemptions.* Department of Environment, Land, Water and Planning http://planning-schemes.delwp.vic.gov.au/schemes/vpps/52\_12.pdf

DELWP (2018) Bushfire Fuel and Risk Management <u>https://www.ffm.vic.gov.au/bushfire-fuel-and-risk-management/joint-fuel-management-program</u>

Nearmap http://maps.au.nearmap.com

# APPENDIX 1– BUSHFIRE SITE ASSESSMENT

	North	South	East	West
Vegetation Type	Forest	Modified vegetation	Modified vegetation	Modified vegetation
Distance from the proposed building to vegetation	60	21	6	10
The effective slope under the vegetation	Up	0 - 5	0 - 5	Up
Defendable space	Property boundary	Property boundary	Property boundary	Property boundary
BAL	29	29	29	29

# APPENDIX 2 DEFENDABLE SPACE CHECKLIST FOR SITE

Requirement	Compliance	Comment	Is a permit required to remove vegetation
All leaves and vegetation debris must be removed at regular intervals during the declared fire danger period.	No	Some clean- up needed	No
Grass must be short cropped and maintained during the declared fire danger period.	No	Some clean- up needed	No
Within 10 metres of a building, flammable objects must not be located close to the vulnerable parts of the building.	No	Some clean- up needed	Νο
Plants greater than 10 centimetres in height must not be placed within 3m of a window or glass feature of the building.	No	Some clean- up needed	Νο
Shrubs must not be located under the canopy of trees.	No	Some shrubs to be removed	No
Individual and clumps of shrubs must not exceed 5 sq. metres in area and must be separated by at least 5 metres.	No	Some shrubs to be removed	No
Trees must not overhang or touch any elements of the building.	Yes		No
The canopy of trees must be separated by at least 5 metres.	No	Some trees to	Yes
There must be a clearance of at least 2 metres between the lowest tree branches and ground level.	metres be removed		Yes

# APPENDIX 3 ACCESS AND WATER SUPPLY REQUIREMENTS

#### Table 4 Water supply requirements

#### Capacity, fittings and access

Lot sizes (square meters)	Hydrant available	Capacity (litres)	Fire authority fittings and access required
Less than 500	Not applicable	2,500	No
500-1,000	Yes	5,000	No
500-1,000	No	10,000	Yes
1,001 and above	Not applicable	10,000	Yes

Note 1: A hydrant is available if it is located within 120 metres of the rear of the building

#### **Fire Authority requirements**

Unless otherwise agreed in writing by the relavant 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 seperate 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).

#### Table 5 Vehicle access design and construction

Vehicle access (or part thereof) of a length specified in Column A implements the design and construction requirements specified in Column B.

Column A	Column B	
Length of access is less than 30 metres	There are no design and construction requirements if fire authority access to the water supply is not required under <b>AM4.1</b> .	
Length of access is less than 30 metres	Where fire authority access to the water supply is required under <b>AM4.1</b> fire authority vehicles should be able to get within 4 metres of the water supply outlet.	
Length of access is greater than 30 metres	<ul> <li>The following design and construction requirements apply:</li> <li>All-weather construction.</li> <li>A load limit of at least 15 tonnes.</li> <li>Provide a minimum trafficable width of 3.5 metres.</li> <li>Be clear of encroachments for at least 0.5 metres on each side and at least 4 metres vertically.</li> <li>Curves must have a minimum inner radius of 10 metres.</li> <li>The average grade must be no more than 1 in 7 (14.4%) (8.1°) with a maximum grade of no more</li> </ul>	
	<ul> <li>than 1 in 5 (20%) (11.3°) for no more than 50 metres.</li> <li>Dips must have no more than a 1 in 8 (12.5 per cent) (7.1 degrees) entry and exit angle.</li> </ul>	
Length of access is greater than 100 metres       A turning area for fire fighting vehicles must be provisioned to the building by one of the following:         • A turning circle with a minimum radius of eight metres.         • A driveway encircling the dwelling.         • The provision of other vehicle turning heads – s as a T or Y head – which meet the specification Austroad Design for an 8.8 metre Service Vehicle		
<ul> <li>Length of access is greater than 200 metres</li> <li>Passing bays must be provided at least even metres.</li> <li>Passing bays must be a minimum of 20 metr with a minimum trafficable width of 6 metres.</li> </ul>		

Note 1: The length of access should be measured from a public road to either the building or the water supply outlet, whichever is longer.

#### SCHEDULE OF BUSHFIRE PROTECTION MEASURES

#### **Defendable space**

The area of defendable space is shown hatched from the edges of the buildings to the property boundaries, where vegetation (and other flammable materials) will be modified and managed in accordance with the following requirements::

- 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.

#### **Construction standards**

The buildings will be designed and constructed a minimum Bushfire Attack Level of (BAL) 29.

#### Water supply

A tank on each lot will hold 10 000 litres of effective water supply on each Lot for each 1500m2 of building for fire fighting purposes which meets the following requirements:

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.

Be readily identifiable from the building or appropriate identification signs 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).

#### Access

A drive way of all-weather construction will meet the following standards

A load limit of at least 15 tonnes with 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.

As the length of access drive to lot 1 is greater than 100 metres, a turning circle with a minimum radius of eight metres or the provision of other vehicle turning heads (such as a T or Y head) which meet the specification of Austroad Design for an 8.8 metre Service Vehicle will be provided.

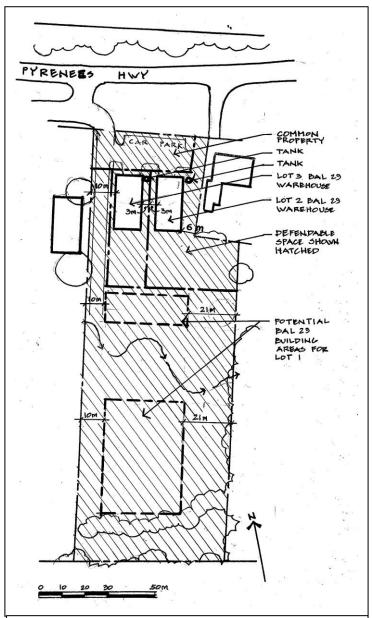


FIGURE 11 BUSHFIRE MANAGEMENT PLAN 4215 Pyrenees Highway, Flagstaff Version B 14/3/2025