

# **BUSHFIRE PROTECTION ASSESSMENT**

**FOR THE PROPOSED WOOLWORTHS METRO  
ON**

**LOT 5211 in DP 1200804**

**No. 262 HAKONE ROAD,  
WOONGARRAH**

**FOR WOOLWORTHS LIMITED**

***Australian Bushfire Protection Planners Pty Limited***

ACN 083 085 474

32 Old Dog Trap Road,  
SOMERSBY 2250 NSW.

Phone: (02) 43622112

Email: [abpp@bigpond.net.au](mailto:abpp@bigpond.net.au)



Australian Bushfire  
Protection Planners Pty Ltd  
ABN 48 935534 462

Bushfire Mitigation Consultants

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<b>Assessment Number</b>	<b>Document</b>	<b>Preparation Date</b>	<b>Issue Date</b>	<b>Directors Approval</b>
B244125 - 4	Final	27.03.2024	01.05.2025	<i>G.L. Swain</i>

## EXECUTIVE SUMMARY

Australian Bushfire Protection Planners Pty Limited, at the request of Woolworths Limited, has undertaken the bushfire consultancy for the proposed construction of the Woolworths Metro development on Lot 5211 in DP 1200804, No. 262 Hakone Road, Woongarra.

The development site contains 9.0 hectares of land located to the east of the Northern Rail Line, between Woongarra Road and Hakone Road.

The proposed Metro occupies the land in the southern portion of the site.

The development site contains vacant land.

The land is zoned E1 Local Centre under the Central Coast Council LEP. A small area of MU1 – Mixed Use Commercial/Residential zoned land is in the southwest corner of the site. A small pocket of RE1 – Public Recreation zoned land is in the northern portion of the site.

**Figure 1 – Land Use Zoning Map.**



Modification to development consent **MP10\_0195-Mod-2** is sought to enable the construction and operation of the Warnervale Shopping Centre with the following scope of works:

- Retail facility with a total Gross Floor Area of 12,834m<sup>2</sup> comprising
  - 7,618m<sup>2</sup> of retail floor space;
  - 840m<sup>2</sup> of commercial floor space;
  - 791m<sup>2</sup> of recreation facility (indoor) (gym);
  - 440m<sup>2</sup> of medical centre;
  - 2,408m<sup>2</sup> of e-commerce facilities;
  - 738m<sup>2</sup> for circulation space/ mall and amenities, toilets etc.
- Car parking totalling 490 spaces at grade;
- Public domain with a total area of 1,540m<sup>2</sup> and 5,715m<sup>2</sup> of landscaping around the site;
- Site preparation and bulk earthworks;
- Road construction including Gibraltar (Mataram) Road and Woongarra (Nikko) Roads;
- Associated infrastructure works and servicing, including subdivision;
- Use and fit out within the building of the proposed Woolworths Supermarket; and
- Site remediation and landscaping.

The development seeks to operate 24 hours per day, seven (7) days per week.

The site is recorded, on the Central Coast Bushfire Prone Land Map as containing Category 1 Bushfire Prone Vegetation and the Buffer Zone to the Category 1 Bushfire Prone Vegetation.

The affection of the site by the Bushfire Prone Land Map triggers the provisions of Section 4.14 of the *Environmental Planning & Assessment Act 1979*.

This report examines the retail development proposal against the aim and objectives of *Planning for Bushfire Protection 2019* to address compliance with the provisions of Section 4.14 of the *Environmental Planning & Assessment Act 1979*.



Graham Swain,  
Managing Director,  
***Australian Bushfire Protection Planners Pty Limited.***

***Fire Protection Association Australia Member No 48781***

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## SECTION 1

### INTRODUCTION

#### 1.1 Aim of this Assessment.

The aim of this Bushfire Protection Assessment is to:

- Determine the formation of the vegetation within 140 metres of the development site;
- Undertake an assessment to determine the effective slope of the land on and surrounding the development site;
- Determine the Fire Danger Index [FDI] for the site;
- Undertake an assessment to determine bushfire protection strategies for the proposed development, including the bushfire protection measures required to be implemented in the design and construction of the retail development and the requisite bushfire protection measures required to address the safety of the staff and shoppers.
- Prepare a report that addresses the following matters:
  - (i) The provision of building setbacks (Defendable Space) from vegetated areas and the siting of building to minimize the impact of radiant heat and direct flame contact on the building;
  - (ii) Fire fighting water supplies;
  - (iii) Access requirements for emergency service vehicles;
  - (iv) Construction standards to be used for the proposed building to minimize the vulnerability of the complex to ignition from radiation and ember attack;
  - (v) Land management responsibilities; and
  - (vi) Evacuation management.

#### 1.2 Development Proposal.

This Bushfire Protection Assessment has been prepared for the construction of a two-level complex which contains a Woolworths Supermarket, E-com Store and specialty shops.

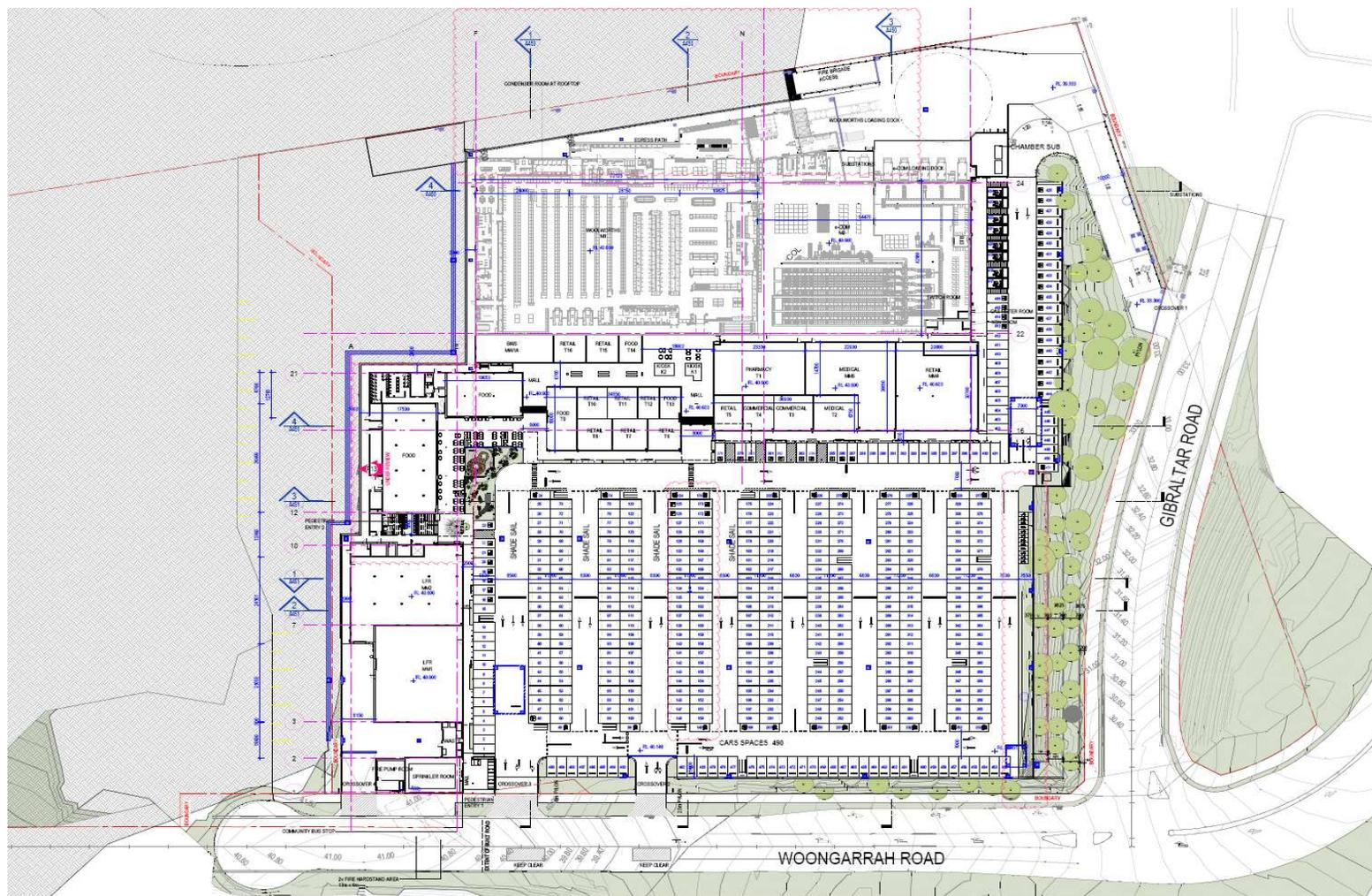
An at grade carparking is in the south-western portion of the site and a Loading Dock area in the south-eastern corner of the site.

Public vehicular access/egress to the complex is off Woongarra Road.

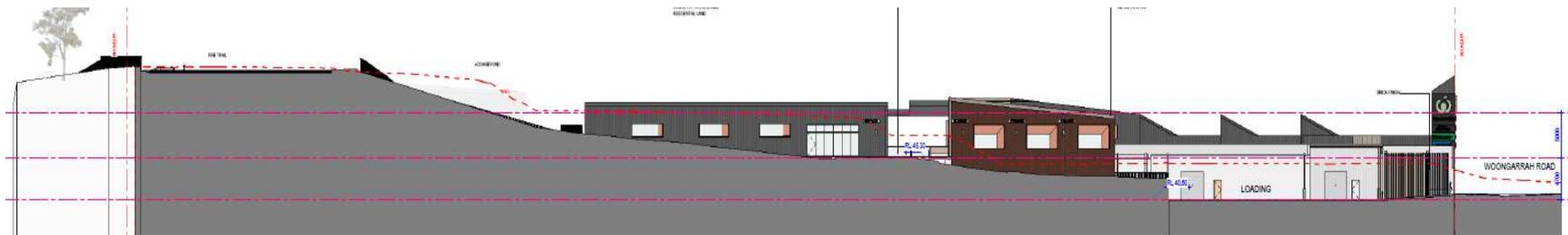
Figure 2 – Site Plan of Development Proposal.



**Figure 3 – Ground Plan of Development Proposal.**



**Figure 4 – North Elevation.**



1 ELEVATION NORTH OVERALL  
Scale 1:200

**Figure 5 – West Elevation.**

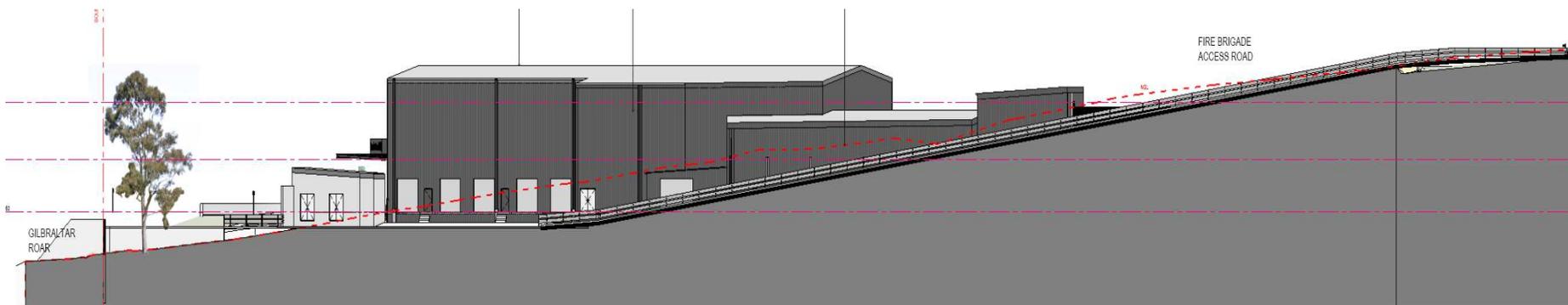


WEST ELEVATION  
Scale 1:200

**Figure 6 – South Elevation.**



**Figure 7 – East Elevation.**



ELEVATION WEST OVERALL

### **1.3 Statutory Requirements.**

This report has been prepared having regard to the following legislative and planning requirements:

#### **1.3.1 Legislation.**

##### **(a) Environmental Planning and Assessment Act (EPA Act)**

**Section 4.14** of the *Environmental Planning & Assessment Act 1979* states that development consent cannot be granted for the carrying out of development for any purpose on bushfire prone land unless the consent authority is satisfied that the development conforms to the specifications and requirements of *Planning for Bushfire Protection 2019* that are relevant to the development.

##### **(b) Rural Fires Act 1997**

The objectives of the *Rural Fires Act* are to provide:

- The prevention, mitigation and suppression of fires;
- Coordination of bushfire fighting and prevention
- Protection of people and property from fires; and
- Protection of the environment.

In relation to the management of bushfire fuels on public and private lands within NSW, Sections 63(1) and 63(2) require public authorities and owners / occupiers of land to take all practicable steps to prevent the occurrence of bushfires on, and to minimize the danger of the spread of bushfires.

#### **1.3.2 Planning Policies.**

##### ***Planning for Bushfire Protection – 2019 (Rural Fire Service).***

*Planning for Bushfire Protection 2019* provides specific deemed-to-satisfy provisions on the bushfire protection measures necessary for rural & residential subdivisions and the construction of “*Special Fire Protection Purpose Developments*” and the construction of Class 1, 2 and 3 buildings in Bushfire Prone areas.

Section 8.3.10 of *Planning for Bushfire Protection 2019* states that the bushfire protection measures for commercial and industrial development is addressed through the aim and objectives of PBP (Chapter 1) and a suitable package of bushfire protection measures should be provided commensurate with the assessed level of risk.

The provisions within Chapter 7 of *Planning for Bushfire Protection 2019* should be used as a base for the development of a package of measures.

The objectives of *Planning for Bushfire Protection 2019* are:

- (i) Afford occupants of any building adequate protection from exposure to a bushfire;
- (ii) Provide for a defensible space to be located around buildings;
- (iii) Provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;
- (iv) Ensure that appropriate operational access and egress for emergency service personnel and residents is available;
- (v) Provide for ongoing management and maintenance of bushfire protection measures; and
- (vi) Ensure that utility services are adequate to meet the needs of fire-fighters.

Central Coast Council, upon receipt of an application for the construction of the proposed retail development, will consider if the development complies with *Planning for Bushfire Protection 2019* or refer the matter to the NSW Rural Fire Service for advice.

#### **1.4 Documentation reviewed in the preparation of this Assessment.**

The following documents were reviewed in the preparation of this report:

- Plan of proposed Woolworth Metro development prepared by Clarke Hopkins Clark;
- Aerial Photograph of the development site and surrounding lands;
- Central Coast Council Bushfire Prone Land Map;
- *Planning for Bushfire Protection 2019* prepared by the NSW Rural Fire Service;
- Australian Standard AS3959 - 2018 '*Construction of Buildings in Bushfire Prone Areas*'.

#### **1.5 Site Review.**

Graham Swain of *Australian Bushfire Protection Planners Pty Limited* undertook an inspection of the site and surrounding areas on the 15<sup>th</sup> March 2024.

## SECTION 2

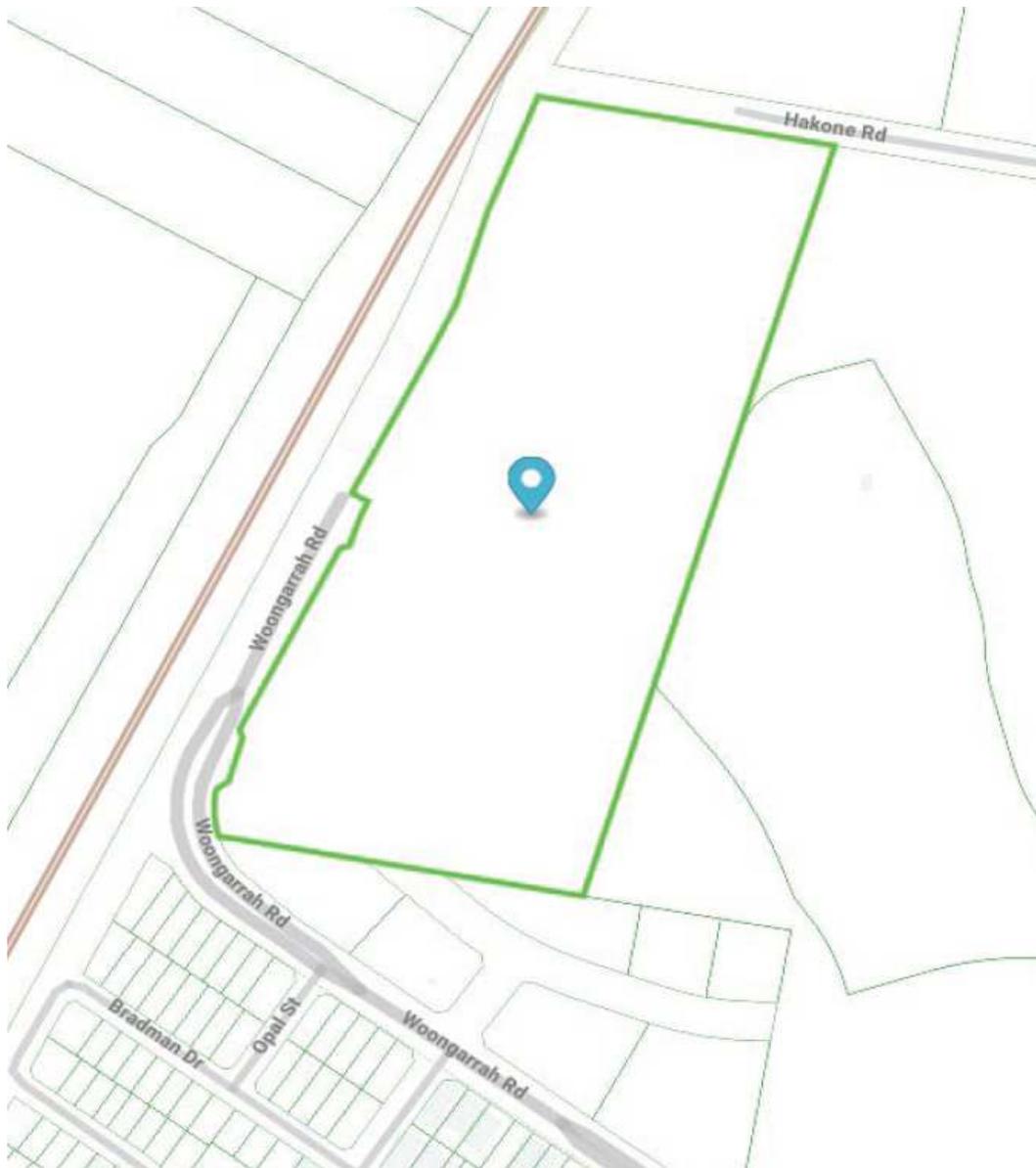
### PROPERTY DESCRIPTION

#### 2.1 Location.

The property over which the proposed retail development is planned is known as Lot 5211 in DP 1200804, No. 262 Hakone Road, Woongarra.

The development site occupies the rectangular shaped parcel of land on the eastern side of the Northern Rail Line/Woongarra Road, between Gibraltar Road in the south to Hakone Road in the north. The development precinct occupies the southern portion of the site.

**Figure 8 – Site Location Plan – Lot 5211 in DP 1200804, No. 262 Hakone Road, Woongarra.**





## **2.3 Surrounding Land Use.**

### **(a) East**

The land to the east of the development site is partially zoned MU1 - Mixed Use Commercial/Residential zoned land and partially zoned RE1 – Public Recreation zoned land.

### **(b) North**

The land to the north of the development precinct is zoned E1 – Local Centre within the northern portion of the site.

### **(c) West**

The land to the west of Woongarra Road contains the Northern Railway Line.

### **(d) South**

The land to the south of the site, beyond Woongarra Road, contains residential development.

*Refer to Figure 9 – Aerial photograph showing development site and surrounding land use on Page 14.*

## **2.4 Topography.**

Appendix 2 of *Planning for Bushfire Protection 2019* states that slopes should be assessed, over a distance of at least 100m from a development site and that the gradient of the land should be determined which will most significantly influence the fire behaviour to the site.

The land within the site forms the western side of a ridgeline that rises to the east of the site, falling from the centre eastern portion of the site to the northwest and southwest.

The land to the east of the development precinct within the southern portion of the site rises to the northeast and follows the contours to the southeast.

The land to the north of the development precinct falls to the northwest across the northern portion of the site.

**Figure 10 – Contour Plan.**



### **2.5 Vegetation within the Development Site.**

Appendix A1.2 of *Planning for Bushfire Protection 2019* provides a methodology for determining the predominant bushfire prone vegetation for at least 140 metres in all directions from the development site.

Vegetation is classified using Figure A2.1 of *Planning for Bushfire Protection 2019*, which classifies vegetation types into the following groups:

- (a) Rainforest;
- (b) Wet Sclerophyll Forest;
- (c) Dry sclerophyll forest;
- (d) Woodland;
- (e) Tall Heath;
- (f) Short Heath; and
- (g) Grassland.

The existing vegetation within the development precinct will be removed as part of the development. The residual land to the north of the development precinct, within the northern part of the development site, contains pockets of remnant Dry Sclerophyll Forest and managed grassland.

### **2.6 Vegetation within 140 metres of Development Site.**

The vegetation on the land to the east of the development precinct consists of a pocket of remnant Dry Sclerophyll Forest and managed grassland on the adjoining playing fields. The land containing the forest vegetation is zoned MU1 – Mixed Use and will be developed – removing the vegetation.

The land to the south contains landscaped gardens within the residential development. The railway corridor to the west of the development precinct contains a narrow band of remnant forest vegetation to both sides of the rail tracks with Dry Sclerophyll Forest extending further to the west.

### **2.7 Significant Environmental Features within the Development Site.**

The land within the development site does not contain Littoral Rainforests under SEPP Coastal Management 2018; land slip areas; National Parks Estate; areas of geological interest and steep lands [>18 degrees] and SEPP Koala Habitat Protection 2019 or riparian corridors.

### **2.8 Known Threatened Species, Population or Ecological Community within the Development Site.**

There are no known threatened species, population or ecological communities within the development site.

### **2.9 Details and location of Aboriginal Relics or Aboriginal Place.**

No Aboriginal relics or Aboriginal places are known to be located within the development site.

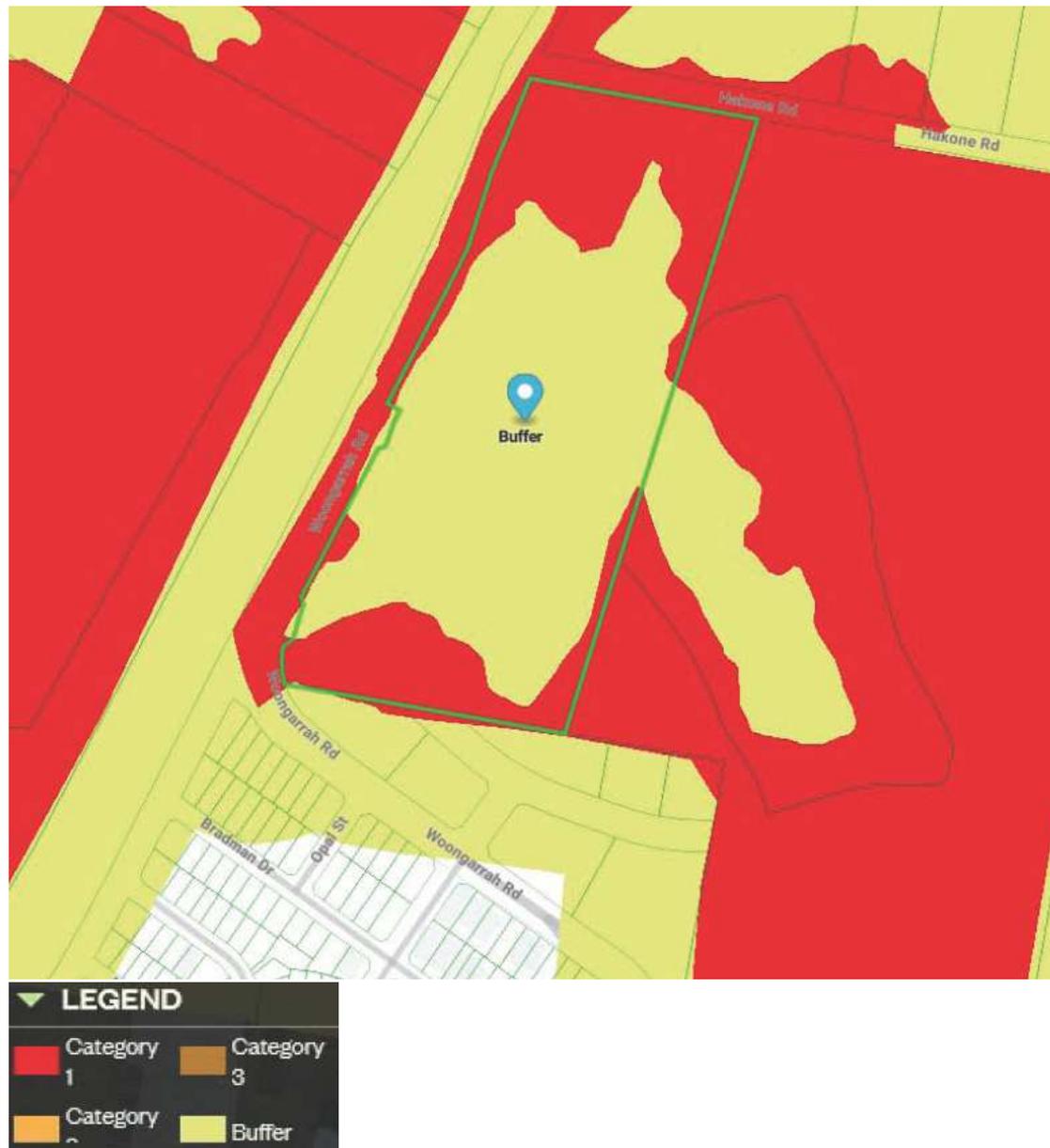
## SECTION 3

### PRECINCT LEVEL ASSESSMENT

#### 3.1 Certified Bushfire Prone Land Map

Figure 8 is a copy of an extract of the Certified Central Coast Bushfire Prone Land Map showing the extent of the Bushfire Prone Vegetation on the development site and adjoining land.

*Figure 11 – Plan of Bushfire Prone Land.*



The mapped Category 1 Bushfire Prone Vegetation consists of forest which will be removed with the development precinct.

## **SECTION 4**

### **BUSHFIRE PROTECTION ASSESSMENT**

#### **4.1 Introduction.**

Chapter 1 of *Planning for Bushfire Protection 2019* states that the aim of the document is to provide for the protection of human life and minimise impacts on property from the threat of bushfire, while having regard to development potential, site characteristics and protection of the environment.

The objectives of the document are:

- (1) *Afford occupants of any building adequate protection from exposure to the impacts of a bushfire;*
- (2) *Provide for a defensible space to be located around buildings;*
- (3) *Provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;*
- (4) *Ensure that safe operational access/egress for emergency service personnel and occupants is available;*
- (5) *Provide for ongoing management and maintenance of bushfire protection measures;*
- (6) *Ensure that utility services are adequate to meet the needs of fire-fighters;*

Section 8.3.10 of *Planning for Bushfire Protection 2019* states that the bushfire protection measures for commercial and industrial development is addressed through the aim and objectives of PBP (Chapter 1) and a suitable package of bushfire protection measures should be provided commensurate with the assessed level of risk.

The provisions within Chapter 7 of *Planning for Bushfire Protection 2019* should be used as a base for the development of a package of measures

A review of compliance with objectives of *Planning for Bushfire Protection 2019* is provided in the following sections.

#### **4.2 Afford occupants of any building adequate protection from exposure to the impacts of a bushfire.**

The bushfire hazard to the proposed retail building is from the forest vegetation on the land to the east and the remnant forest vegetation on the northern portion of the development site and the forest vegetation on the land to the northeast of the development site.

The width of the rail corridor removes the direct bushfire risk from the forest vegetation on the land to the west of the railway corridor.

The future removal of the pocket of forest vegetation on the land to the east of the proposed building will remove the current bushfire risk to the building.

However, to address the minimum setback required to satisfy A.S. 3959 – 2018, a 10 metre wide Defendable Space is being provided along the eastern side of the building.

This setback also provides fire appliance access to the eastern and north of the building and reduces the potential for flame contact on the eastern wall of the building.

A 30 metre wide managed Landscaped Buffer zone is to be provided to the north of the development precinct. The residual land to the north of the development precinct (within the development site) will be managed to maintain a low fuel hazard in the northern portion of the development site.

#### **4.3 Provide for a defendable space to be located around building.**

A Defendable Space [Asset Protection Zone] of 10 metres is provided to the east of the building.

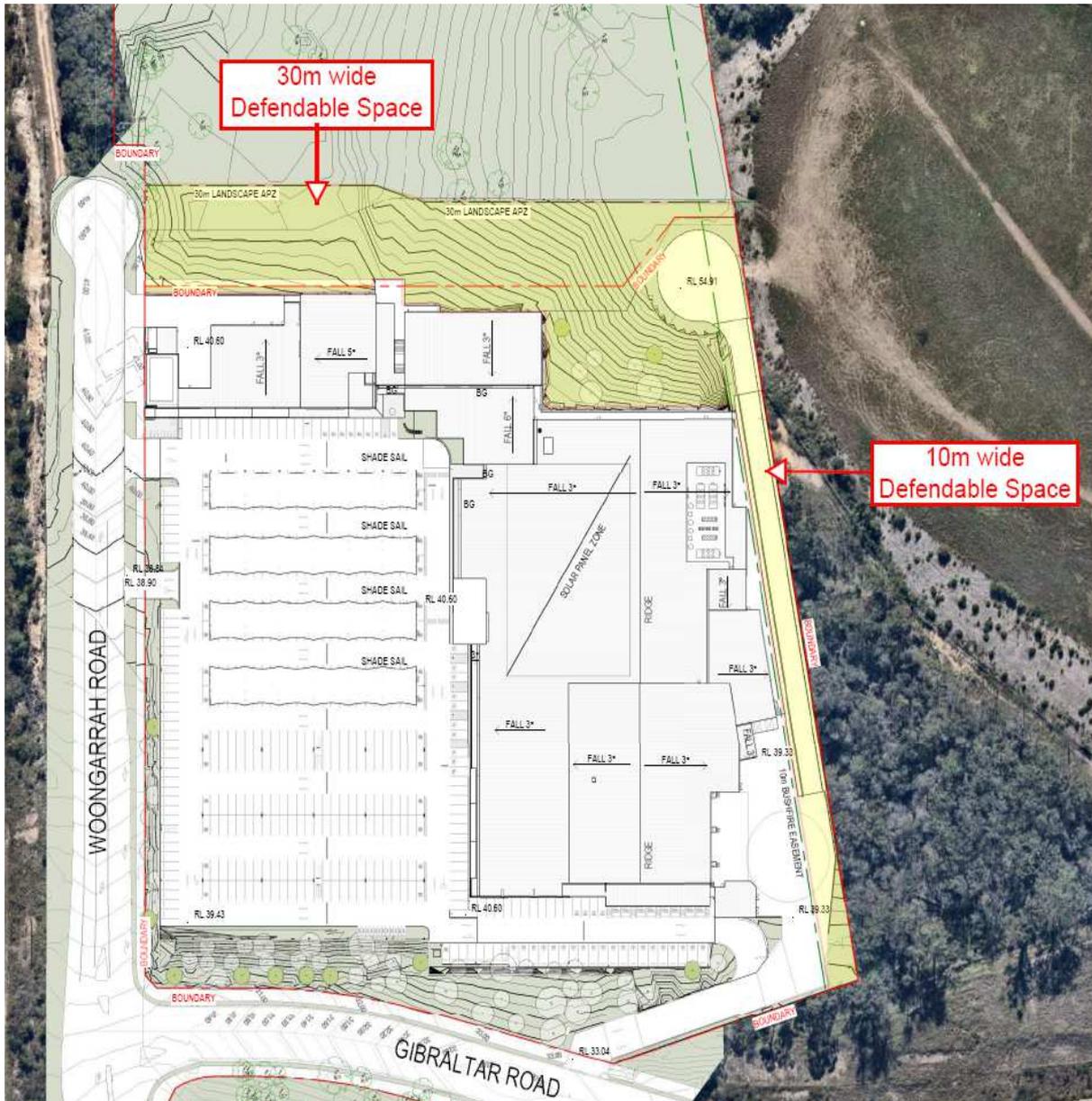
#### **4.4 Provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent direct flame contact and material ignition.**

A Defendable Space of minimum 10 metres is to be provided between the building and the remnant forest vegetation on the land to the east, removing the risk of flame contact on the building from the east.

The eastern wall of the building is to be constructed having an FRL of 120/120/120, exceeding the requirements of A.S. 3959 – 2018 – *‘Construction of Building in Bushfire Prone Areas’*.

To provide protection against potential ember attack, the remainder of the building shall be constructed to satisfy the requirements of Section 3 and Section 5 (BAL 12.5) of A.S. 3959 – 2018 – *‘Construction of Building in Bushfire Prone Areas’* is required.

**Figure 12 – Plan of Defendable Spaces.**



**4.5 Ensure that safe operational access/egress for emergency service personnel is available.**

**4.5.1 Public Roads:**

The development site has frontage to Woongarra Road which will be extended further north along the western side of the development site to provide vehicular access to the carpark and to service the Retail spaces in the north-western corner of the development site.

Woongarra Road will be constructed to the north, linking to Hakone Road, providing two-way access to the west of the development site.

The roadworks will be constructed to a standard which conforms to the deemed-to-satisfy specifications for Public Roads as defined by Appendix 3 of *Planning for Bushfire Protection 2019*.

#### **4.5.2 Fire Trail Access.**

There are no fire trails provided or required within the development proposal.

#### **4.5.3 Emergency Response Access / Egress.**

The development proposal provides for vehicular access/egress off Woongarra Road into the open Carparking area in the south-western corner of the development site.

The emergency access/egress within the development provides safe operational access for emergency service personnel and customers/staff of the retail development and satisfies item (iv) of the Objectives of *Planning for Bushfire Protection 2019*.

#### **4.6 Provide for ongoing management and maintenance of bushfire protection measures.**

The landscaped buffer zone to the north of the complex shall be managed as a Defendable Space in accordance with Appendix 4 of *Planning for Bushfire Protection 2019*.

#### **4.7 Ensure that utility services are adequate to meet the needs of fire-fighters.**

The proposed retail development will have a reticulated water supply connected to the street mains. The fire fighting system to the development will include a fire main with Booster Valves and sprinklers/hydrants installed in compliance with A.S. 2419.1 – 2021.

#### **4.8 Emergency Management for Bushfire Fire Protection / Evacuation.**

There is no requirement for the preparation of a Bushfire and Emergency Evacuation Plan for the development.

## SECTION 5

### RECOMMENDATIONS

#### **Recommendation 1:**

##### ***Management of Landscaped Buffer Zone (Defendable Space):***

The landscaped buffer zone to the north of the complex shall be managed as a Defendable Space in accordance with Appendix 4 of *Planning for Bushfire Protection 2019* and the NSW Rural Fire Service's "*Standards for Asset Protection Zones*".

#### **Recommendation 2:**

##### ***Bushfire Construction Standards:***

The building shall be constructed to satisfy the requirements of Section 3 and Section 5 (BAL 12.5) of A.S. 3959 – 2018 – '*Construction of Building in Bushfire Prone Areas*' is required.

## SECTION 6

### CONCLUSION

*Australian Bushfire Protection Planners Pty Limited*, at the request of *Woolworths Limited*, has undertaken the bushfire consultancy on the proposed retail development on Lot 5211 in DP 1200804, No. 262 Hakone Road, Woongarra.

The development proposal seeks approval to construct a single-storey building which contains a Woolworths Supermarket and specialty retail shops.

This report examines the extent of the bushfire prone vegetation adjacent to and within the development site and confirms that the proposed retail development has exposure to a low level of risk from a bushfire that may occur in the forest vegetation on the land to the east and within the northern portion of the development site.

The vegetation in the northern portion of the development site will continue to be fuel managed to reduce the bushfire hazard to the north of the building.

The risk from a fire occurring on the adjoining land is low. However, pending development of the land to the east there is a requirement to provide bushfire construction standards to the building. This has been addressed through the construction of a wall that meets an FRL standard of 120/120/120.

Due to the potential for ember attack from a fire that occurs in the forest vegetation on the land to the west of the rail corridor it has been recommended that the building be constructed to comply with Section 3 and Section 5 (BAL 12.5) of A.S 3959 – 2018 – ‘*Construction of Buildings in Bushfire Prone Areas*’.



Graham Swain,  
Managing Director,  
***Australian Bushfire Protection Planners Pty Limited.***

***Fire Protection Association Australia Member No 48781***

## REFERENCES:

- N.S.W Rural Fire Service – *Planning for Bushfire Protection 2019*;
- *Environmental Planning & Assessment Act – 1979*;
- *Rural Fires Act – 1997*;
- NSW Rural Fire Service – *Guideline for Bushfire Prone Land Mapping 2020*;
- Building Code of Australia;
- Australian Standard A.S 3959-2018 “*Construction of Buildings in Bushfire Prone Areas*”;
- *Central Coast Bushfire Prone Land Map*.