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Bushfire Protection Assessment

Commercial Development, Penrith Homemaker Centre

Harvey Norman (Calardu Penrith Pty Ltd)

DOCUMENT TRACKING

Project Name	Bushfire Protection Assessment – Penrith Homemaker Centre, Jamisontown
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Status	Final
Version Number	v3
Last saved on	24 January 2025

This report should be cited as ‘Eco Logical Australia (ELA). 2025. *Bushfire Protection Assessment – Penrith Homemaker Centre, Jamisontown*. Prepared for Harvey Norman (Calardu Penrith Pty Ltd).’

LIMITATIONS

The bushfire protection measures recommended in this report do not completely remove the risk to life and property, and they do not guarantee that a development will not be impacted by a bushfire event. This is substantially due to the degree of vegetation management, the unpredictable nature and behaviour of fire, and extreme weather conditions.

ACKNOWLEDGEMENTS

This document has been prepared by Eco Logical Australia Pty Ltd with support from Harvey Norman (Calardu Penrith Pty Ltd)

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Template 2.1.4

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Abbreviations

Abbreviation	Description
AS 3959	Australian Standard AS 3959:2018 Construction of buildings in bushfire-prone areas
APZ	Asset Protection Zone
BAL	Bushfire Attack Level
BDAR	Biodiversity Development Assessment Report
BFPL	Bush Fire Prone Land
BFRMP	Bush Fire Risk Management Plan
BPM	Bushfire Protection Measures
DA	Development Application
DCP	Development Control Plan
DtS	Deemed-to-Satisfy
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
FDI	Fire Danger Index
FRNSW	Fire + Rescue New South Wales
IPA	Inner Protection Area
LEP	Local Environmental Plan
NASH	National Association of Steel-framed Housing
NCC	National Construction Code
PBP	Planning for Bush Fire Protection 2019 and Addendum to Planning for Bush Fire Protection 2022
RF Act	<i>Rural Fires Act 1997</i>
RF Reg	<i>Rural Fires Regulation 2022</i>
RFS	NSW Rural Fire Service
SA	Standards Australia
SVTM	State Vegetation Type Map

1. Property and Proposal

Table 1 identifies the subject property and outlines the type of development proposed.

Table 1: Subject site and development proposal summary

Street address:	13-23 Pattys Place, Jamisontown
Postcode:	2750
Lot/DP no:	Lot 10 DP 1046110
Local Government Area:	Penrith City Council
Fire Danger Index (FDI)	100
Current land zoning:	E3: Productivity Support
Type of development proposed:	Commercial development

1.1 Description of Proposal

The proposal aims to extend the existing homemaker centre building at 13-23 Pattys Place, Jamisontown. The proposal includes two main components: alteration to existing buildings, and extension of property access to include full perimeter access.

The proposed development will be contained within the existing E3 zone and is identified as a Class 6 building, with no works proposed on the adjoining lot. The development is proposed to extend the building to provide a total increase of floorspace of approximately 6,577 m². The development is located on land identified as bush fire prone land (BFPL) within the ePlanning Spatial Viewer¹, as shown in Figure 1.

A planning proposal is required to amend the height of building controls under the Penrith Local Environmental Plan (LEP) (2010) to enable an increase in height, to facilitate the proposed development. This will be followed by a Development Application (DA), to seek approval for the works.

¹ <https://www.planningportal.nsw.gov.au/spatialviewer/#/find-a-property/address>

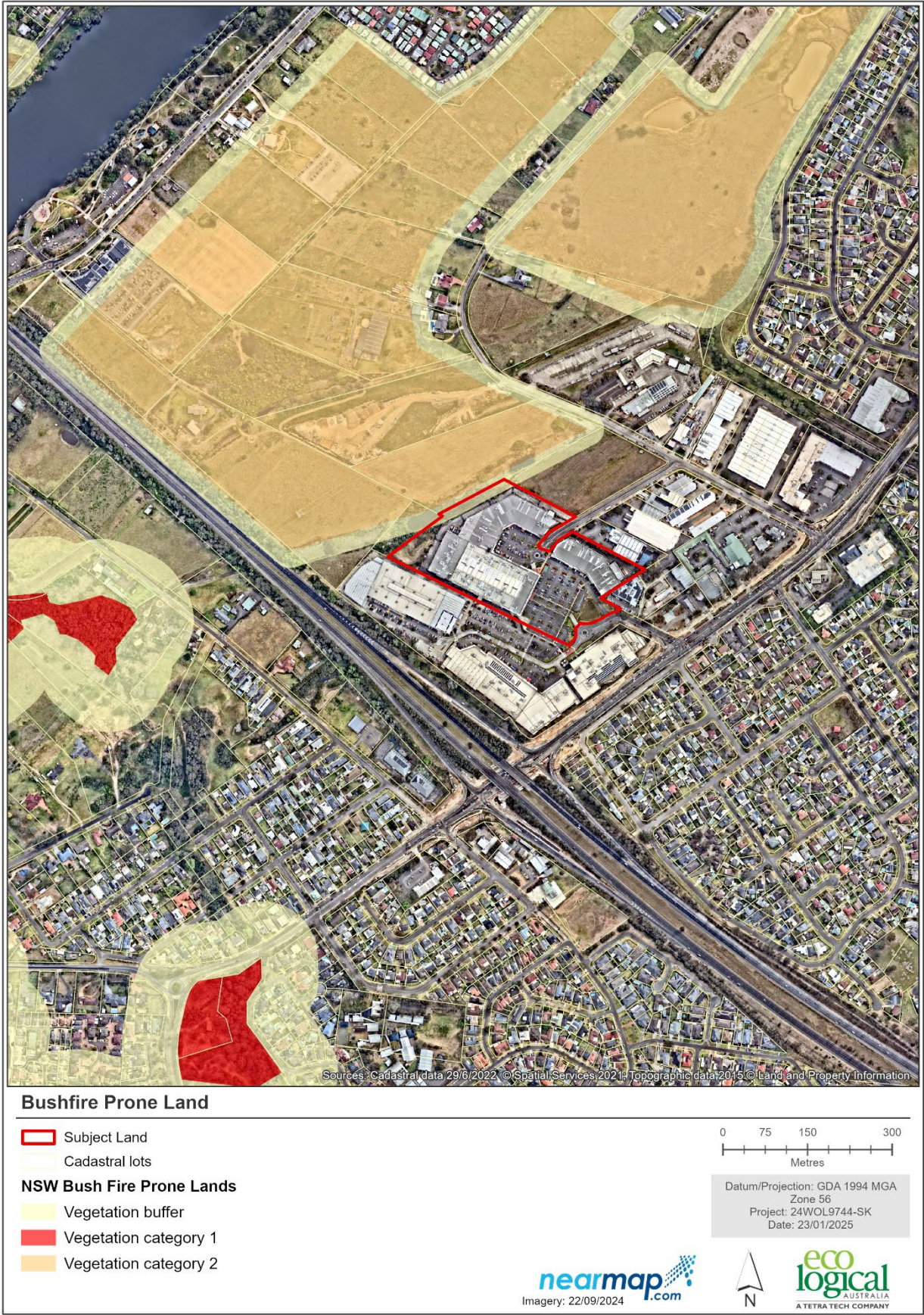


Figure 1: Bush Fire Prone Land Mapping

1.2 Assessment Process

Under the Ministerial Direction 4.3 (Planning for Bushfire Protection) issued under Section 9.1 (2) of the *Environmental Planning and Assessment Act 1979* (EP&A Act), where a planning proposal includes or is in close proximity to BFPL, the relevant planning authority must consult with the Commissioner of the NSW Rural Fire Service (RFS). Additionally, under the Penrith Development Control Plan (2014), Part C2 states that a Bushfire Assessment Report, is required to accompany all DAs, prepared in accordance with Planning for Bushfire Protection 2019 (PBP; RFS 2019). Therefore, the assessment detailed in this study seeks to evaluate whether the proposal adheres to the requirements of PBP. The legislative framework guiding the assessment of bushfire risk and the application of bushfire protection measures at the strategic level, includes the NSW *EP&A Act* and the *Rural Fires Act 1997* (RF Act).

The requirements under Ministerial Direction 4.3 are addressed within the strategic assessment as indicated in Table 2 below.

Table 2: Ministerial Direction 4.3 Requirements

Direction requirements		Response - Bushfire report
The objectives of this direction are to:	(a) protect life, property, and the environment from bush fire hazards, by discouraging the establishment of incompatible land uses in bush fire prone areas, and (b) encourage sound management of bush fire prone areas.	Bushfire protection measures as required under PBP 2019 are achievable on site as detailed in Section 4 of this report.
(2) A planning proposal must:	(a) have regard to Planning for Bushfire Protection 2019,	The requirements of PBP in regard to strategic planning and commercial development have been considered in this assessment.
	(b) introduce controls that avoid placing inappropriate developments in hazardous areas, and	The proposal will not result in development that is inappropriate for the area.
	(c) ensure that bushfire hazard reduction is not prohibited within the Asset Protection Zone (APZ).	There are no known restrictions to APZ management on site
(3) A planning proposal must, where development is proposed, comply with the following provisions, as appropriate:	(a) provide an Asset Protection Zone (APZ) incorporating at a minimum: i. an Inner Protection Area bounded by a perimeter road or reserve which circumscribes the hazard side of the land intended for development and has a building line consistent with the incorporation of an APZ, within the property, and ii. an Outer Protection Area managed for hazard reduction and located on the bushland side of the perimeter road,	To comply as shown in section 3 and 4 of this assessment.
	(b) for infill development (that is development within an already subdivided area), where an appropriate APZ cannot be achieved, provide for an appropriate performance standard, in consultation with the NSW Rural Fire Service. If the provisions of the planning proposal permit Special Fire Protection Purposes (as defined under section 100B of the Rural Fires Act 1997), the APZ provisions must be complied with,	N/A

Direction requirements		Response - Bushfire report
	(c) contain provisions for two-way access roads which links to perimeter roads and/or to fire trail networks,	Development joins existing public road network, with internal perimeter access provided.
	(d) contain provisions for adequate water supply for firefighting purposes,	To comply
	(e) minimise the perimeter of the area of land interfacing the hazard which may be developed,	Perimeter access road provided
	f) introduce controls on the placement of combustible materials in the Inner Protection Area.	To comply

As the planning proposal will aim to amend building height controls under the Penrith LEP (2010), section 9.1 (2) of the *EP&A Act* triggers consideration of PBP for strategic planning. Chapter 4 of PBP contains strategic planning principles, ‘inappropriate development’ exclusions and assessment considerations required for strategic studies. Chapter 4 of PBP prescribes the completion of a Strategic Bushfire Study, which provides the opportunity to assess whether proposed land uses associated with master planning are appropriate in the bushfire risk context. It also provides the ability to assess the strategic implications of future development for bushfire mitigation and management.

The strategic planning principles of PBP are:

- *Ensuring land is suitable for development in the context of bushfire risk;*
- *Ensuring new development on BFPL will comply with PBP;*
- *Minimising reliance on performance-based solutions;*
- *Providing adequate infrastructure associated with emergency evacuation and firefighting operations; and*
- *Facilitating appropriate ongoing land management practices.*

These principles trigger the consideration of bushfire protection measures at the strategic planning stage, to provide an opportunity to consider the suitability of future land uses within the broader bushfire risk setting and that future land uses can meet the aim and objectives of PBP outlined below:

The aim of PBP is to provide for the protection of human life and minimise impacts on property from the threat of bushfire, while having due regard to development potential, site characteristics and protection of the environment.

The objectives are to:

- i afford buildings and their occupants 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, minimises material ignition;*
- 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 firefighters.*

In addition, Chapter 4 of PBP prescribes that strategic planning should exclude ‘inappropriate development’ in bushfire prone areas, where:

- *the development area is exposed to a high bushfire risk and should be avoided;*
- *the development is likely to be difficult to evacuate during a bushfire due to its siting in the landscape, access limitations, fire history and/or size and scale;*
- *the development will adversely affect other bushfire protection strategies or place existing development at increased risk;*
- *the development is within an area of high bushfire risk where density of existing development may cause evacuation issues for both existing and new occupants; and*
- *the development has environmental constraints to the area which cannot be overcome.*

This study therefore assesses the proposal in the context of the PBP strategic planning principles, ‘inappropriate development’ exclusions as well as the assessment considerations identified in Table 4.2.1 of PBP, summarised in Table 3 below.

Table 3: Summary of PBP assessment considerations for a Strategic Bushfire Study (RFS 2019)

Issue	Summary of Assessment Considerations
Bushfire landscape assessment	A bushfire landscape assessment considers the likelihood of a bushfire, its potential severity and intensity and the potential impact on life and property in the context of the broader surrounding landscape.
Land use assessment	The land use assessment will identify the most appropriate locations within the master plan area or site layout for the proposed uses.
Access and egress	A study of the existing and proposed road networks both within and external to the master plan area and site layout.
Emergency services	An assessment of the future impact of the new development on emergency services provision.
Infrastructure	An assessment of the issues associated with infrastructure provision.
Adjoining land	The impact of new development on adjoining landowners and their ability to undertake bushfire management.

As the planning proposal is to facilitate commercial development, the proposed design plans have also been assessed in accordance with the aims and objectives of PBP. Chapter 7 of PBP has been utilised as a guide in developing relevant bushfire protection measures (BMP) commensurate with the bushfire risk to the site.

This assessment is based on the following information sources:

- Background documentation provided by Knight Frank Town Planning;
- Information contained within the site plan provided by Knight Frank, Project No. 249371.00, Issue A, 21 November 2024; and
- GIS analysis including online spatial resources (i.e. Near Maps and the NSW Government Planning Portal).

Table 4 identifies the BPM assessed in this report.

Table 4: Summary of bushfire protection measures assessed

Bushfire Protection Measure	Acceptable Solution	Performance Solution	Report Section
Asset Protection Zones	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4.3
Access	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4.4
Water supply	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4.5
Electrical services	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4.6
Gas services	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4.7
Construction standards	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4.8
Landscaping	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4.9

1.3 Significant Environmental Features

A separate Biodiversity Development Assessment Report (BDAR) has been prepared for the development (ELA, 2024). The impact footprint of the bushfire protection measures (e.g. Asset Protection Zone (APZ)) is identified within this report.

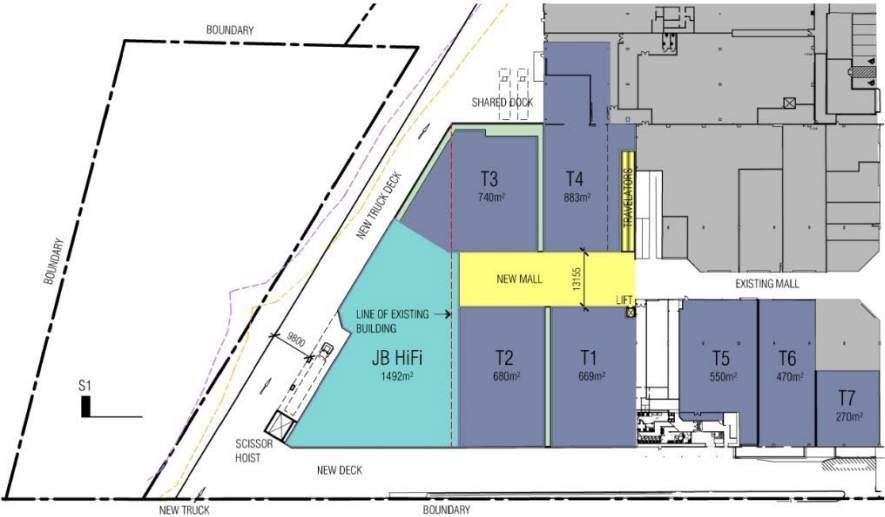
Penrith City Council is the determining authority for this development; they will assess more thoroughly any potential environmental issues.

1.4 Aboriginal Cultural Heritage

An assessment of any Aboriginal cultural heritage objects (within the meaning of the *National Parks and Wildlife Act 1974*) that may potentially be affected by the proposed bushfire protection measures has not been undertaken in this report as it is covered by other parts of the Development Application (DA) process.

The impact footprint of the bushfire protection measures (e.g. APZ) is identified within this report and therefore capable of being assessed by a suitably qualified person. Penrith City Council is the determining authority for this development; they will assess more thoroughly any potential Aboriginal cultural heritage issues.

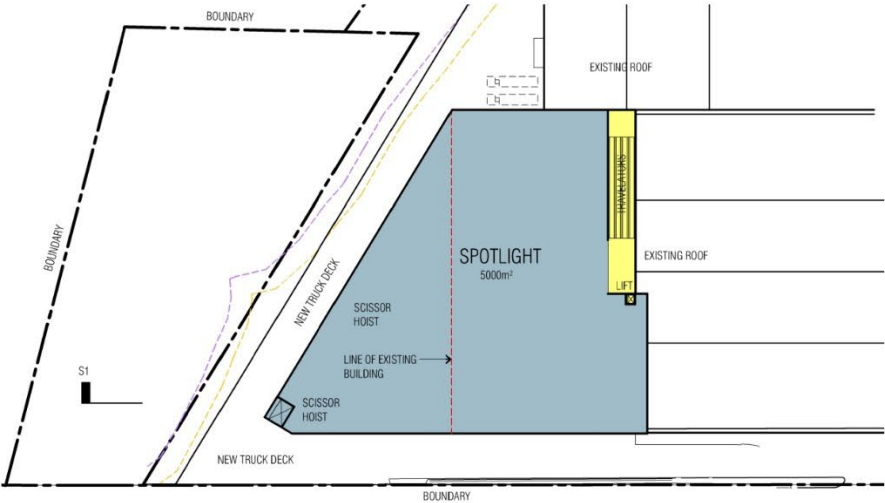
PLOT DATE: Nov 21 2024



GROUND LEVEL PLAN
1:1000@A3

SITE INFO	
EXISTING SPOTLIGHT	3726m2
PROPOSED	
GROUND FLOOR (EXTRA OVER)	1577m2
SPOTLIGHT	5000m2
TOTAL (EXTRA OVER)	6577m2

LEGEND	
	SPOTLIGHT
	JB HiFi
	NEW TENANCIES (IN OLD SPOTLIGHT/JB HiFi & EXT.)
	NEW MALL/CUSTOMER ACCESS
	STOCK ACCESS
	EXISTING TENANCIES
	5m RIPARIAN SETBACK
	10m RIPARIAN SETBACK



LEVEL 1 PLAN
1:1000@A3



DRAWING OPTION 10 - PLANS		
SCALE	DATE	DRAWN
VARIES	21.11.24	GEA
PROJECT NO.		CHECKED
240371.00		GEA
DRAWING NO.		ISSUE
SK-19		A

Figure 2: Proposed development

2. Strategic Assessment

The feasibility of the Planning Proposal to comply with the BPMs identified within PBP is a fundamental consideration of the study. While BPMs and their performance criteria are a benchmark for approval of a development, a strategic level study needs also to evaluate these measures within the landscape risk context. This SBS has therefore considered the following:

- The bushfire landscape risk context in consideration of the protection measures for future development and their potential adequacy;
- The type/s of development proposed, and their suitability given the bushfire risk context;
- The pattern and potential bushfire resilience of the bushland interface; and
- Potential cumulative risk associated with proposed development in the locality.

2.1 Strategic Evaluation

The subject land is situated within a broader landscape primarily supporting existing residential and commercial/industrial development. Between the Nepean River to the west, and the site, there is modified grassland subject to varied management regimes and land uses.

The subject land is situated within the Cumberland Bush Fire Management Committee Area, and the existing commercial centre is listed as a commercial asset (asset no. 12) under the Cumberland Bush Fire Risk Management Plan (BFRMP; CBFMC 2021). Treatments currently identified in the plan for the site includes:

- T7: Implement Fire + Rescue New South Wales (FRSNSW) Community Engagement
- T8: Undertake Community Engagement Strategy

As per the BFRMP, the bushfire season within the committee areas generally runs from October to March, with prevailing bushfire conditions associated with north-westerly winds, high temperatures and low humidity. While the committee area is subject to a number of bushfires in any given year, on average only one fire per year is considered to be a major fire.

In considering the strategic requirements detailed in Chapter 4 of PBP, Table 5 below provides an evaluation of the planning proposal and suitability of the site for future development. Given the location of the site and moderated risk profile, the planning proposal is considered to be consistent with the strategic principles outlined in PBP, and future development is not inappropriate given the capacity for bushfire protection measures.

Table 5: Strategic Evaluation

Issue	Evaluation
Bushfire landscape assessment	Broader landscape dominated by existing urban development. Grassland is present to the west of the site, however this is moderated by fragmented fire pathways, existing management, urban development and roads. As a result, the potential for extended fire runs is moderated and therefore it is unlikely for a landscape fire to impact the site at an intensity that cannot be mitigated.
Land use assessment	The planning proposal aims to facilitate expansion of existing commercial development, and this is considered appropriate, given the capacity for bushfire protection measures to be implemented.
Access and egress	Multiple access points joining the existing public road network are in place, and the potential for access routes to be impacted by fire is low given these routes are primarily surrounded by urban development. There are also improved access outcomes with the extension of the perimeter access road.
Emergency services	The planning proposal is to facilitate a proposed extension of an existing commercial centre and therefore any increase in capacity is considered to have a negligible impact on emergency services.
Infrastructure	There is no concern for the provision of infrastructure by future development enabled via the planning proposal. The site is serviced by reticulated water and therefore compliance with the requirements of PBP is expected.
Adjoining land	Future development will not increase the landscape bushfire risk, nor subject to adjoining land to any increased risk. APZs can be accommodated wholly within the subject land.

3. Bushfire Hazard Assessment

3.1 Process

The site assessment methodology from Appendix 1 of PBP has been applied in this assessment to determine the APZ and construction requirements.

Figure 3 and Table 6 show the effective slope and predominant vegetation representing the highest bushfire threat potentially posed to the development from various directions.

3.2 Vegetation Assessment

In accordance with PBP, the predominant vegetation formation has been assessed for a distance of at least 140 m from the subject land in all directions.

The predominant vegetation has been determined from State Vegetation Type Map (DCCEEW 2022) and validated vegetation by an ecologist (ELA 2024).

3.3 Slope Assessment

In accordance with PBP, the slope that would most significantly influence fire behaviour was determined over a distance of 100 m from the boundary of the proposed development under the classified vegetation.

The effective slope has been determined from 2 m contour data.

3.4 Summary of Assessment

Bushfire prone vegetation affecting the proposed development is located to the north-west and north-east of the site. To the north-west, ELA validated mapping (Biodiversity Development Assessment Report; ELA 2024) confirms the presence of a plant community type (PCT) associated with the *Freshwater Wetlands* formation. However, due to the presence of planted native species and exotic species in this area, the vegetation aligns more closely to *Forested Wetland* under PBP. A dam is located to the north-east of the site, with sedges and aquatic species are also present. The hazard in this direction aligns to the PBP definition of *Freshwater Wetlands*. Details of the assessment are tabulated in Table 6.

The effective slope under the vegetation falls into the slope category of ‘all upslopes and flat land’.

In all other directions, there are managed lands in the form of the existing developed homemaker centre.

Table 6: Bushfire hazard assessment, APZ requirements and BALs

Transect #	Slope	Vegetation Formation	Required APZ	Proposed APZ	Bushfire Attack Level (BAL)	Comments
1 (North-west)	All upslopes and flat land	Forested Wetland	10 m	≥10 m	≤BAL-29	APZ provided to be provided by new truck access and managed land located wholly within subject land boundary.
2 (North)	All upslope and flat land	Freshwater Wetlands	5 m	≥10 m	≤BAL-29	APZ provided to be provided by new truck access and managed land located wholly within subject land boundary.
All other directions	Managed Land					

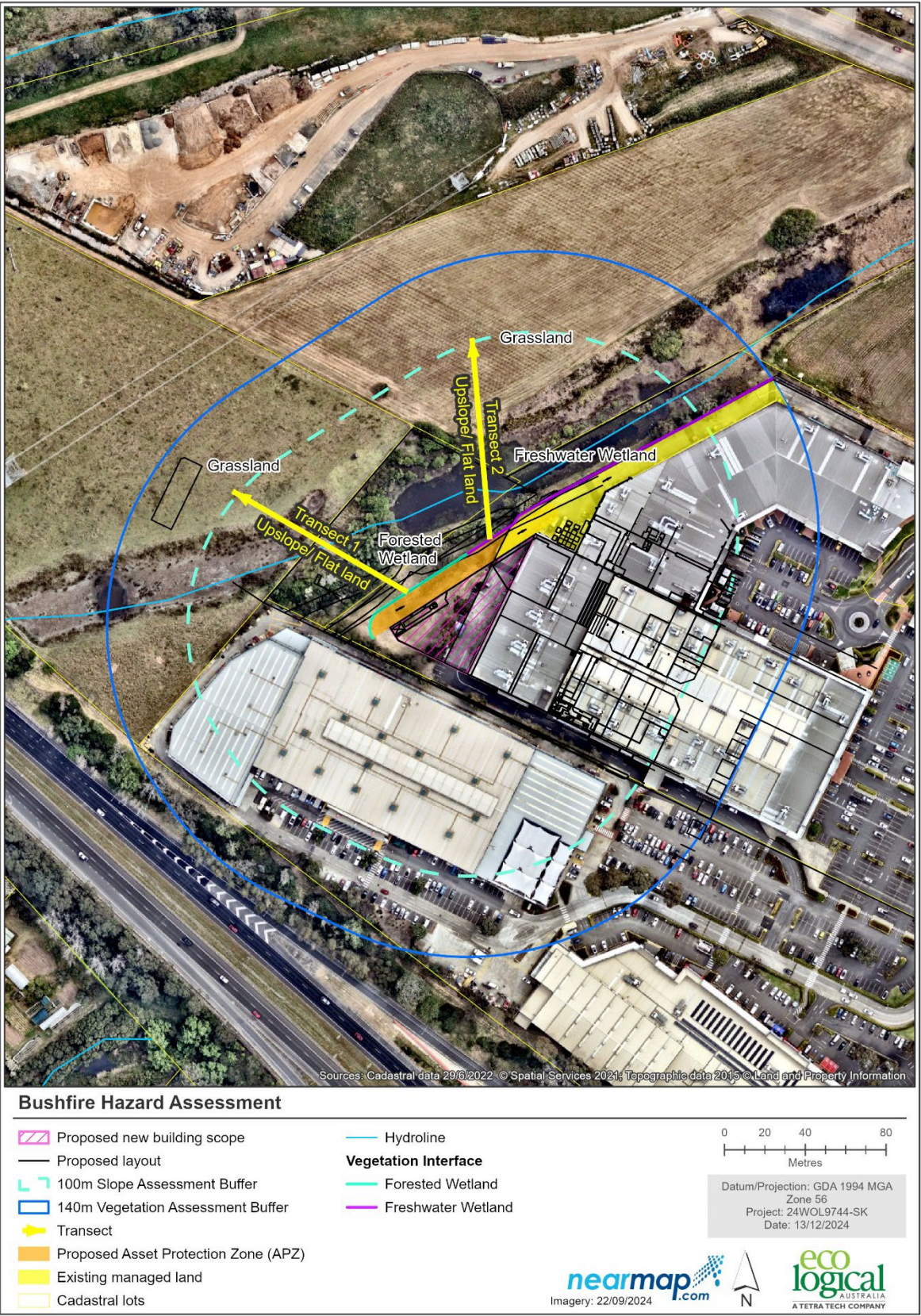


Figure 3: Bushfire Hazard Assessment

4. Bushfire Protection Measures

4.1 PBP Aim and Objectives for Commercial/ Industrial Development

As directed in Section 8.3.10 of PBP, where no residential component is included, commercial/industrial development is addressed through the aim and objectives of PBP. The BPMs for commercial/industrial development should:

- Be commensurate with the level of risk to the development;
- Reflect the scale of development and occupant numbers; and
- Use Chapter 7 of PBP (infill development) as a base for their development.

The proposal satisfies the aim and objectives of PBP, and therefore the controls outlined in Part C2, Section 2.3 (C) of the Penrith DCP (2014), as summarised below:

- **Aim** - The aim of PBP is to provide for the protection of human life and minimise impacts on property from the threat of bush fire, while having due regard to development potential, site characteristics and protection of the environment.
 - The proposed development complies with the aim of PBP by achieving the specific objectives for industrial / commercial development identified below.
- **Specific Objective 1** - *afford buildings and their occupants protection from exposure to a bush fire;*
 - The development provides protection from exposure by way of defensible space by adequate APZ (10 m), general fire safety provisions/ember protection to buildings (refer Section 4.8) and perimeter access as provided by the proposed truck access platform and shown in Figure 3.
 - The proposed truck access platform links to the existing perimeter road network to the north-east and south-east and complies with Section 7 of PBP providing safe evacuation routes for future occupants. Construction standards will also support this objective
- **Specific Objective 2** - *provide for a defensible space to be located around buildings;*
 - The site provides a defensible space by way of perimeter access/road and APZ (10 m) as shown in Figure 3.
- **Specific Objective 3** - *provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;*
 - The development design provides opportunity to achieve suitable defensible space between hazard and building by adequate APZ (10 m), general fire safety provisions/ember protection to buildings (refer Section 4.8) and perimeter access. The proposed truck access platform links to the existing perimeter road network to the north-east and south-east, providing the extension full perimeter truck access on all boundaries to allow emergency service personnel an adequate operational area for prevention of fire spread.
- **Specific Objective 4** - *ensure that appropriate operational access and egress for emergency service personnel and occupants is available;*
 - The existing homemaker centre enables access to the development via a public through road to the east, affording safe operational access/egress to emergency services as demonstrated further in Section 4.4.

- **Specific Objective 5** - *provide for ongoing management and maintenance of BPM; and*
 - The entire development site is to be managed as an Inner Protection Area (IPA) as per the specifications outlined in Appendix A. Landscaping will need to comply with the acceptable solutions identified in Table 7.4a of PBP.
- **Specific Objective 6** - *ensure that utility services are adequate to meet the needs of firefighters.*
 - The development is capable of complying with the acceptable solutions for utilities under Section 7 of PBP and specific objectives outlined in Section 4.5 – 4.7 of this report.

4.2 Specific objectives for Class 5-8 buildings

Below are the Specific Objectives for Class 5 - 8 buildings and a comment on how they are achieved.

- **Specific Objective 1** - provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupant egress for evacuation.
 - As shown in Figure 3 and demonstrated further in Section 4.4 of this report, the proposed development has direct access to the existing public road system of the homemaker centre, providing safe access/egress for both firefighters and occupants.
- **Specific Objective 2** - provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development.
 - An emergency plan meeting requirements of the *Work Health Safety Regulation 2017* and relevant legislation is to be applied to the building extension prior to Occupation Certificate.
- **Specific Objective 3** - provide adequate services of water for the protection of buildings during and after the passage of bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building.
 - The proposed development will be serviced by reticulated water. Electricity to the development is underground and complies with PBP. Supply of gas (if any) will be installed and maintained in accordance with Section 4.7 of this report.
- **Specific Objective 4** - provide for the storage of hazardous materials away from the hazard wherever possible.
 - The building will be required to store any hazardous materials (if any) in accordance with the relevant safety guidelines and safety data sheets.

4.3 Asset Protection Zones

Table 6 shows the dimensions of the required APZ and where relevant, information on how the APZ is to be provided is included. The footprint of the APZ is also shown on Figure 3.

The compliance of the proposed APZ with Section 7.4 of PBP is documented in Table 7.

Table 7: APZ requirements and compliance (adapted from Table 5.3a of PBP)

Performance Criteria	Acceptable Solutions	Compliance Notes
The intent may be achieved where:		
APZs are provided commensurate with the construction of the building; and A defensible space is provided.	APZs are provided in accordance with Tables A1.12.2 or A1.12.3 in Appendix 1.	Complies APZ provided in accordance with Table A1.12.2 as shown in Table 6 and Figure 3.
APZs are managed and maintained to prevent the spread of a fire towards the building.	APZs are managed in accordance with the requirements of Appendix 4 of PBP.	To comply APZ to be managed in accordance with PBP. Fuel management specifications provided in Appendix A.
The APZ is provided in perpetuity.	APZs are wholly within the boundaries of the development site.	Complies APZ located wholly within the development site.
APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised.	APZ are located on lands with a slope less than 18 degrees.	Complies APZ is not located on slopes greater than 18°.

4.4 Access

No additional public roads are proposed as access to the proposed commercial development. A new suspended driveway around the proposed building extension will connect to the existing truck access driveways / external road network. Access to the Homemaker centre is via two-way through road driveways to the north-east and south-east, which connect to the public road network.

The compliance of the proposed property access with Section 7.4 of PBP is detailed in Table 8.

Table 8: Property access requirements (adapted from Table 7.4a of PBP)

Performance Criteria	Acceptable Solutions	Compliance notes
The intent may be achieved where:		
Firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation.	Firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation.	Complies Access around the new development will be a one-way suspended vehicle access, which will be accessed by two-way, existing driveways with two access points.
The capacity of access roads is adequate for firefighting vehicles	The capacity of road surfaces and any bridges/causeways is sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes), bridges and causeways are to clearly indicate load rating.	To comply The advice of a relevant authority or suitably qualified professional should be sought, for certification of design and installation in accordance with relevant legislation, Australian Standards and Table 7.4a of PBP.
There is appropriate access to water supply.	Hydrants are provided in accordance with the relevant clauses of AS 2419.1:2005 [SA 2005a]; There is suitable access for a Category 1 fire appliance to within 4 m of the static water supply where no reticulated supply is available.	To comply Not applicable
Firefighting vehicles can access the dwelling and exit the property safely.	at least one alternative property access road is provided for individual dwellings or groups of dwellings that are located more than 200 metres from a public through road;	Not applicable
	There are no specific access requirements in an urban area where an unobstructed path (no greater than 70m) is provided between the most distant external part of the proposed dwelling and the nearest part of the public access road (where the road speed limit is not greater than 70kph) that supports the operational use of emergency firefighting vehicles. In circumstances where this cannot occur, the following requirements apply:	Not applicable
	Minimum 4 m carriageway width;	Complies >4 m carriageway width provided.
	In forest, woodland and heath situations, rural property access roads have passing bays every 200 m that are 20 m long by 2 m wide, making a minimum trafficable width of 6 m at the passing bay;	Not applicable
	A minimum vertical clearance of 4 m to any overhanging obstructions, including tree branches;	To comply Proposed development is to ensure minimum vertical clearance of 4 m.

Performance Criteria	Acceptable Solutions	Compliance notes
	Provide a suitable turning area in accordance with Appendix 3 of PBP;	Not applicable Existing through road driveway provided as shown on figure 1.
	Curves have a minimum inner radius of 6 m and are minimal in number to allow for rapid access and egress;	To comply The advice of a relevant authority or suitably qualified professional should be sought, for certification of design and installation in accordance with relevant legislation, Australian Standards and Table 7.4a of PBP.
	The minimum distance between inner and outer curves is 6 m;	
	The crossfall is not more than 10 degrees;	
	Maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads;	

4.5 Water Supplies

The compliance of the proposed water supply with Section 7.4 of PBP is detailed in Table 9.

Table 9: Water supply requirements (adapted from Table 7.4a of PBP)

Performance Criteria	Acceptable Solution	Compliance Notes
Adequate water supplies is provided for firefighting purposes.	Reticulated water is to be provided to the development where available; A static water supply is provided where no reticulated water is available.	To comply The development will be serviced by a reticulated water supply.
Water supplies are located at regular intervals; and The water supply is accessible and reliable for firefighting operations.	Fire hydrant, spacing, design and sizing complies with the relevant clauses of Australian Standard AS 2419.1 (SA 2005); Hydrants are not located within any road carriageway; and Reticulated water supply to urban subdivisions uses a ring main system for areas with perimeter roads.	To comply The advice of a relevant authority or suitably qualified professional should be sought, for certification of design and installation in accordance with relevant legislation, Australian Standards and Table 7.4a of PBP.
Flows and pressure are appropriate.	Fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1 (SA 2005).	
The integrity of the water supply is maintained.	All above-ground water service pipes are metal, including and up to any taps; and Above-ground water storage tanks shall be of concrete or metal.	

4.6 Electricity Services

The compliance of the proposed supply of electricity services with Section 7.4 of PBP is detailed in Table 10.

Table 10: Requirements for the supply of Electricity services (adapted from Table 7.4a of PBP)

Performance Criteria	Acceptable Solution	Compliance Notes
Location of electricity services limits the possibility of ignition of surrounding bush land or the fabric of buildings.	<p>Where practicable, electrical transmission lines are underground;</p> <p>Where overhead, electrical transmission lines are proposed as follows:</p> <p>Lines are installed with short pole spacing (30 m), unless crossing gullies, gorges or riparian areas; and</p> <p>No part of a tree is closer to a power line than the distance set out in ISSC3 Guide for the Management of Vegetation in the Vicinity of Electricity Assets (ISSC3 2016).</p>	<p>To comply</p> <p>Electricity services to the development will be located underground.</p> <p>Not applicable.</p>

4.7 Gas Services

The compliance of the proposed supply of gas services (reticulated or bottle gas) with Section 7.4 of PBP is detailed in Table 11.

Table 11: Requirements for the supply of gas services (adapted from Table 7.4a of PBP)

Performance Criteria	Acceptable Solution	Compliance Notes
Location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings.	<p>Reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 – The Storage and handling of LP gas (2014), the requirements of relevant authorities, and metal piping is used;</p> <p>All fixed gas cylinders are kept clear of all flammable materials to a distance of 10 m and shielded on the hazard side;</p> <p>Connections to and from gas cylinders are metal;</p> <p>Polymer-sheathed flexible gas supply lines are not used; and</p> <p>Above-ground gas service pipes are metal, including and up to any outlets.</p>	<p>To comply</p> <p>The advice of a relevant authority or suitably qualified professional should be sought, for certification of design and installation in accordance with relevant legislation, Australian Standards and Table 5.3c of PBP.</p>

4.8 Construction Standards

The building construction standard is generally based on the determination of the BAL in accordance with Appendix 1 of PBP. The BAL is based on known vegetation type, effective slope and managed separation distance between the development and the bushfire hazard. The compliance of the proposed construction with Section 7.4 of PBP is detailed in Table 12.

Table 12: Construction requirements (adapted from Table 7.4a of PBP)

Performance Criteria	Acceptable Solutions	Compliance Notes
The intent may be achieved where:		
The proposed building can withstand bush fire attack in the form of embers, radiant heat and flame contact.	BAL is determined in accordance with Tables A1.12.5 to A1.12.7 of PBP.	Complies BAL determined using Table A1.12.5 of PBP.
	Construction provided in accordance with the National Construction Code (NCC) and as modified Section 7.5 of PBP.	Complies with performance criteria No specific requirements for bushfire related construction under the NCC for this building class. See Section 4.8.2 for further detail.
Proposed fences and gates are designed to minimise the spread of bush fire.	Fencing and gates are constructed in accordance with Section 7.6 of PBP.	To comply Specification detailed in Section 4.8.4 of this report.
Proposed Class 10a buildings are designed to minimise the spread of bush fire.	Class 10a buildings are constructed in accordance with Section 8.3.2 of PBP.	Not applicable No Class 10a buildings proposed.

4.8.1 Bushfire Attack Level (BAL)

The proposed development is exposed to a maximum of **BAL-29** as identified in Table 6.

4.8.2 Construction requirements

As stated within Section 8.3.1 of PBP, National Construction Code (NCC) Class 5 to 8 buildings (which include offices, factories, warehouses and other commercial or industrial facilities) do not have specific bushfire performance requirements under the NCC and as such building construction standards under AS 3959:2018 (SA 2018) or the NASH standard (NASH 2021) do not apply as a set of deemed to satisfy provisions.

New construction shall be in accordance with the general fire safety provisions of the NCC and incorporate the additional ember protection measures listed in Section 4.8.3 below.

4.8.3 Ember protection measures

The additional ember protection measures based on the requirements of AS 3959 are as follows:

- The roof/wall junctions are to be sealed/screened with aluminium, steel or bronze mesh with a minimum aperture size of 2 mm;
- All openable portions of windows to be screened with aluminium, steel or bronze mesh with a minimum aperture size of 2 mm;
- The base of side-hung external doors shall be fitted with draught excluders/draught seals/weather strips;
- The rollers doors shall be protected with suitable weather strips/draught excluders/draught seals or brushes (Figure 4). If fitted with guide tracks no edge gap protection required; and
- Roller shutter doors with ventilation slots shall be protected with non-combustible mesh with 2 mm aperture.

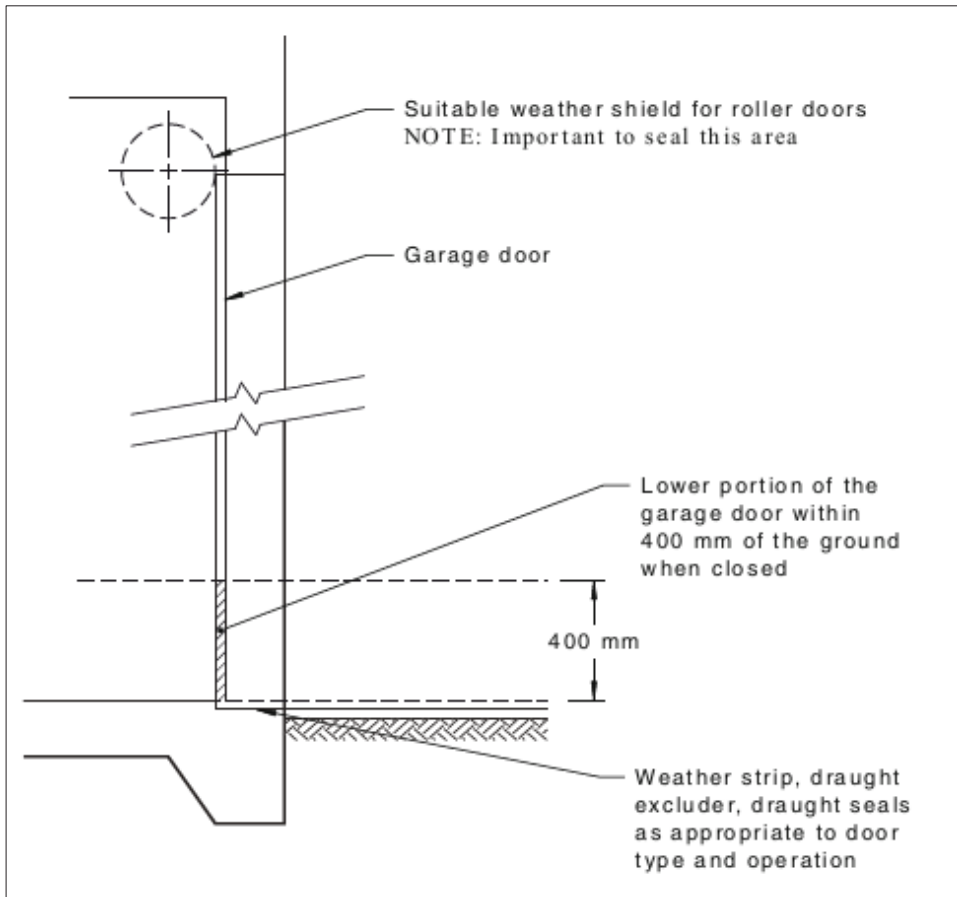


Figure 4: Roller shutter door installation (SA 2018)

4.8.4 Fences and gates

To comply with Section 7.6 of PBP, all fencing and gates are to be constructed of hardwood or non-combustible material. Where fencing is within 6 m of a building or in areas of BAL-29 or greater, they should be made of non-combustible material only.

4.9 Landscaping

The compliance of the proposed landscaping with Section 7.4 of PBP is detailed in Table 13.

Table 13: Landscaping requirements and compliance (adopted from Table 7.4a of PBP)

Performance Criteria	Acceptable Solutions	Compliance Notes
The intent may be achieved where:		
Landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions.	Compliance with the NSW RFS 'asset protection zone standards' (see Appendix 4 of PBP);	To comply To be managed in accordance with PBP. Fuel management specifications provided in Appendix A.
	A clear area of low-cut lawn or pavement is maintained adjacent to the house;	To comply
	Fencing and retaining walls are constructed in accordance with section 7.6; and	To comply Specification detailed in Section 4.8.4 of this report.
	Trees and shrubs are planted such that: <ul style="list-style-type: none"> the branches will not overhang the roof; the tree canopy is not continuous; and if proposed, a windbreak is located on the elevation from which fires are likely to approach. 	To comply

5. Conclusion

The proposed development (including the planning proposal to amend the height of the centre and DA) is consistent with the strategic planning principles outlined in chapter 4 of PBP, the specific objectives of PBP, and Ministerial Direction 4.3.

The proposed development has been assessed against the specifications and requirements of PBP, as outlined in Table 14.

Table 14: Development bushfire protection measures and associated recommendations

Bushfire Protection Measures	Recommendations	Acceptable Solution	Performance Solution	Report Section
Asset Protection Zones	This assessment indicates the proposed development will comply with the PBP APZ performance criteria (Figure 3), 10 m APZ.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4.3
Access	Access to meet specific objectives as per Section 4.4 of this report.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4.4
Water supplies	Reticulated water supply to meet PBP acceptable solution specifications.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4.5
Electricity service	Electricity supply located underground.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4.6
Gas services	Gas services are to be installed and maintained in accordance with AS/NZS 1596:2014.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4.7
Construction standard	The development is to be constructed in accordance with the general fire safety provisions of the NCC and incorporate the additional ember protection measures listed in Section 4.8.3.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4.8
Landscaping	Any future landscaping meets the requirements of PBP listed in Section 4.9.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4.9

6. Recommendations

It is recommended that the planning proposal to amend the height controls under the Penrith LEP (2010) be supported based following evaluation of the proposal in relation to the strategic planning requirements set out in Chapter 4 of PBP.

It is also recommended that the proposed development be approved with consent conditions based on the findings in Table 14.



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7. References

Cumberland Bush Fire Management Committee (CBFMC). 2021. Cumberland Fire Management Committee Bush Fire Risk Management Plan. Approved by NSW Bush Fire Coordinating Committee.

Eco Logical Australia (ELA). 2024. 13-23 Pattys Place, Jamisontown – Biodiversity Development Assessment Report. Prepared for Harvey Norman.

Industry Safety Steering Committee (ISSC). 2016. *ISSC3 Guide for the Management of Vegetation in the Vicinity of Electricity Assets*. November 2016 Edn, ISSC, Sydney.

Keith, D. 2004. *Ocean Shores to Desert Dunes*. Department of Environment and Conservation, Sydney.

National Association of Steel Framed Housing (NASH). 2021. *Steel Framed Construction in Bush Fire Prone Areas (NS300)*. NASH, Melbourne.

NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW). 2022. *NSW State Vegetation Type Map*. Updated 8 November 2024. Sharing and Enabling Environmental Data (SEED), NSW Government.

NSW Rural Fire Service (RFS). 2019. *Planning for Bush Fire Protection: A Guide for Councils, Planners, Fire Authorities, Developers and Homeowners - issued December 2019*. NSW RFS, Sydney.

NSW Rural Fire Service (RFS). 2022. *Planning for Bush Fire Protection: A Guide for Councils, Planners, Fire Authorities and Developers – Addendum November 2022*. NSW RFS, Sydney.

Penrith City Council. 2014. *Penrith Development Control Plan 2014 – Part C2 Vegetation Management*. Penrith City Council.

Standards Australia (SA). 2005. *Fire hydrant installations - System design, installation and commissioning*, AS 2419.1:2005. SAI Global, Sydney.

Standards Australia (SA). 2014. *The storage and handling of LP Gas*, AS/NZS 1596:2014. SAI Global, Sydney.

Standards Australia (SA). 2018. *Construction of buildings in bushfire-prone areas (including Amdt 1 and 2)*, AS 3959:2018. SAI Global, Sydney.

Appendix A - Asset Protection Zone and Landscaping Standards

The following APZ management specifications apply to the APZs specified in Table 6 and shown in Figure 3. The identified APZs are to be maintained in perpetuity and management undertaken on an annual basis (as a minimum) and prior to the commencement of the bushfire season.

These APZ management specifications should be considered for any future landscaping and maintenance.

Further details on APZ implementation and management can be found on the NSW RFS website (<https://www.rfs.nsw.gov.au/resources/publications>).

Table 15: APZ management specifications

Vegetation Strata	Inner Protection Area (IPA)
Trees	<ul style="list-style-type: none"> • Tree canopy cover should be less than 15% at maturity; • Trees (at maturity) should not touch or overhang the building; • Lower limbs should be removed up to a height of 2 m above ground; • Canopies should be separated by 2 to 5 m; and • Preference should be given to smooth barked and evergreen trees.
Shrubs	<ul style="list-style-type: none"> • Create large discontinuities or gaps in the vegetation to slow down or break the progress of fire towards buildings should be provided; • Shrubs should not be located under trees; • Shrubs should not form more than 10% ground cover; and • Clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.
Grass	<ul style="list-style-type: none"> • Should be kept mown (as a guide grass should be kept to no more than 100 mm in height); and • Leaves and vegetation debris should be removed.

