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Bushfire Protection Assessment

Industrial Development

Western Sydney Airport Business Park

Gray & Walsh Pty Ltd

DOCUMENT TRACKING

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Project Number	23SYD5344 / 24SYD7568
Project Manager	Courtney Blick
Prepared by	Melinda Losh, Courtney Blick
Reviewed by	Bruce Horkings FPAA BPAD Accredited Practitioner No. BPAD29962-L3, David Bonjer
Approved by	Bruce Horkings FPAA BPAD Accredited Practitioner No. BPAD29962-L3, David Bonjer
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Template 2.8.1

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Abbreviations

Abbreviation	Description
AS 3959	Australian Standard AS 3959-2018 <i>Construction of buildings in bushfire prone areas</i>
APZ	Asset protection zone
BAL	Bushfire attack level
BFPL	Bush fire prone land
BPM	Bushfire protection measures
DCP	Development control plan
FDI	Fire danger index
Ha	Hectares
IPA	Inner protection area
NASH	National Association of Steel-framed Housing
NCC	National Construction Code
PBP	‘Planning for Bush Fire Protection 2019’ and ‘Planning for Bushfire Protection Addendum 2022’
RFS	NSW Rural Fire Service
SSD	State Significant Development

1. Property and proposal

1.1 Introduction

Eco Logical Australia Pty Ltd (ELA) has been commissioned by Gray and Walsh Pty Limited to prepare this report in accordance with the technical requirements of the Secretary's Environmental Assessment Requirements (SEARs), and in support of the State Significant Development Application (SSDA; SSD-64409468) for the proposed development of the Western Sydney Airport Business Park (WSABP), comprising twelve warehouse and distribution facilities and associated infrastructure within the Agribusiness Precinct of the Western Sydney Aerotropolis. The Agribusiness Precinct is located in the western section of the proposed Western Sydney Aerotropolis Structure Plan (Figure 1 and Table 1).

The Secretary's Environmental Assessment Requirements (SEARs) have been issued in respect of the proposal and requires a bushfire assessment of the development against the requirements of *Planning for Bush Fire Protection 2019* (RFS 2019), and *Planning for Bushfire Protection Addendum 2022* (RFS 2022) herein collectively referred to as PBP. The Project has been assessed against the Planning Secretary's environmental assessment requirements (SEARs) for the Western Sydney Airport Business Park (SSD-64409468) at 2422-2430 The Northern Road, Luddenham (Lots 3-7 DP 1240511 and Part Lot 40 in DP1311162), issued 29 November 2023.

The site is located at 2422 - 2430 The Northern Rd, Luddenham NSW, in the Liverpool local government area (LGA). The site has an area of 67.2 Ha and is approximately 700 m north-west of the Western Sydney Airport site. The site is identified in Figure 1 and Table 1 below.

Table 1 identifies the subject property and outlines the type of development proposed. The proposed development is identified in Figure 2.

Table 1: Subject site and development proposal summary

Development summary	
Street address	2422 – 2430 The Northern Road, Luddenham
Postcode	2745
Lot/DP no	Lots 3-7 DP 1240511 Part Lot 40 in DP 1311162
Local Government Area	Liverpool
Fire Danger Index (FDI)	100
Current land zoning	AGB - Agribusiness ENZ – Environment and Recreation
Type of development proposed	State Significant Development (SSD) of a Warehouse and Logistics Estate (Commercial / Industrial)

1.1.1 The Secretary's Environmental Assessment Requirements

The Secretary's Environmental Assessment Requirements (SEARs) have been issued in respect of the proposal. Table 2 below indicates the areas of the report that address each of these components.

Table 2: How the report addresses the SEARs

Requirements of the SEARs	Addressed by Report Section
Bush Fire – a bush fire assessment report that addresses the aims and objectives of Planning for Bushfire Protection 2019, and includes:	Section 1.3
Details of proposed operational access for emergency services personnel	Section 3.4
Details of emergency and evacuation arrangements for occupants/visitors	Section 3.2 and Section 3.10
A Bush Fire Emergency Management and Evacuation Plan prepared in accordance with relevant RFS guidance.	Section 3.10

1.1.2 Western Sydney Aerotropolis Development Control Plan 2022

This report demonstrates compliance with the Western Sydney Aerotropolis Development Control Plan (DCP; DPE 2022). Table 3 below indicates where these requirements have been met.

Table 3: How the report addresses the DCP

Reference	Performance outcome	Benchmark	Report section	Proposal Compliance
PO2	Populations of threatened species are retained, and the condition of suitable habitat improves within areas of the Cumberland subregion most likely to support long-term viability.	7. Locate Asset Protection Zones (APZs) for bushfire protection wholly within certified land. The appropriate APZ distance is determined by Planning for Bush Fire Protection 2019 and Rural Fire Service Standards for Asset Protection based on vegetation type, slope and development type.	2	Complies Asset Protection Zones for bushfire protection are wholly within the certified land. Compliance has been assessed and determined based on PBP 2019 and development type.

1.2 Description of Proposal

The proposal is for the site subdivision and construction of warehousing and distribution facilities, with ancillary offices to support the development of the Integrated Logistics Hub Airfreight Interface and Agribusiness Precinct within the site at The Northern Rd (Figure 1 and Table 1). Development of the WSABP includes:

- site subdivision;
- vegetation clearing and earthworks;
- construction of retaining structures, estate roads and associated intersections and road crossing of Cosgroves Creek;
- construction and operation of twelve warehouse and distribution facilities;
- stormwater drainage;
- restoration of Cosgroves Creek riparian corridor within the site; and
- ancillary development including car parking, infrastructure provision and landscaping.

A total developable area of approximately 462,429 m² is proposed, distributed across 12 warehouses and includes two and three storey ancillary offices and single storey dock offices:

- Warehouse 1: approx. 32,800 m²

- Warehouse 2: approx. 34,650 m²
- Warehouse 3: approx. 35,650 m²
- Warehouse 4: approx. 10,600 m²
- Warehouse 5: approx. 13,100 m²
- Warehouse 6: approx. 44,050 m²
- Warehouse 7: approx. 10,550 m²
- Warehouse 8: approx. 16,700 m²
- Warehouse 9: approx. 11,850 m²
- Warehouse 10: approx. 16,350 m²
- Warehouse 11: approx. 16,970 m²
- Warehouse 12: approx. 18,300 m²

1.3 Assessment Process

The subject site is identified as Bush Fire Prone Land (BFPL) on the Bushfire Prone Land layer within the ePlanning Spatial Viewer¹.

The proposal was assessed in accordance with *Planning for Bush Fire Protection 2019* (RFS 2019), and *Planning for Bushfire Protection Addendum 2022* (RFS 2022) herein collectively referred to as PBP. The proposal is for a commercial/industrial development and therefore, has 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 Gray and Walsh
- Information contained within the site master plan prepared by Reid Campbell, *Western Sydney Airport Masterplan* Sheet No.1230069_A00004, Issue Y, dated 31 July 2025
- Information contained within the draft landscape plans prepared by Reid Campbell, *Western Sydney Airport Business Park Landscape Masterplan*, Dwg No. La-4, Rev A, dated 01 August 2025
- GIS analysis including online spatial resources (i.e. Near Maps and the NSW Government Planning Portal).

Table 4 below 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	☐	☒	3.3
Access	☐	☒	3.4
Water supplies	☐	☒	3.5
Electricity services	☐	☒	3.6
Gas services	☐	☒	3.7
Construction standards	☐	☒	3.8
Landscaping	☐	☒	3.9

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

Bushfire Protection Measure	Acceptable Solution	Performance Solution	Report Section
Emergency Management	☐	☒	3.10
Staged Development	☐	☒	3.11

1.4 Significant Environmental Features

An assessment of significant environmental features, threatened species, populations or ecological communities under the *Biodiversity Conservation Act 2016* 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 SSDA process.

The impact footprint of the BPM (e.g. Asset Protection Zone (APZ)) is clearly identified within this report and therefore capable of being assessed by suitably qualified persons as required. The Minister for Planning and Public Spaces is the determining authority for this development; they will assess more thoroughly any potential environmental issues.

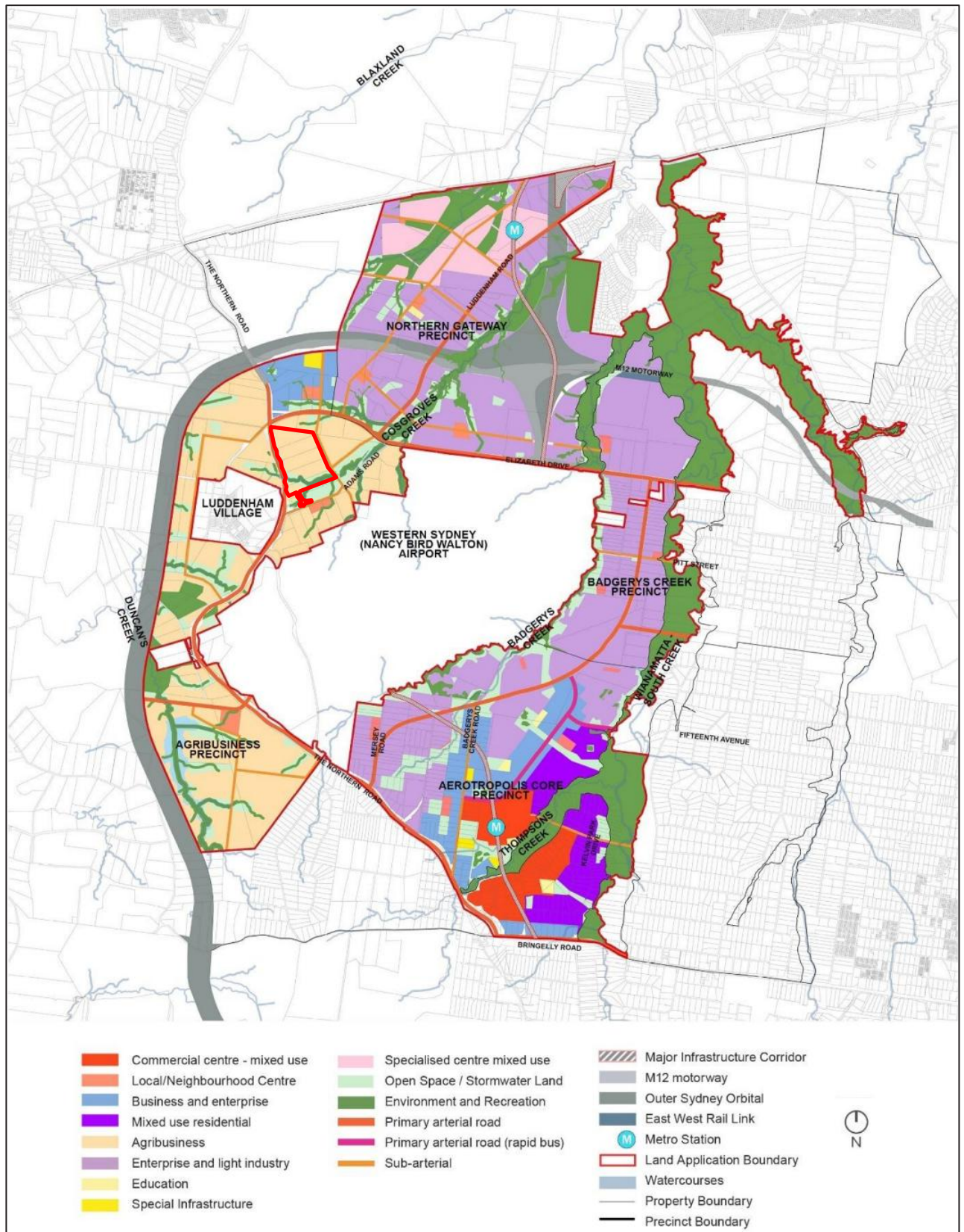


Figure 2: Study area (red boundary) in relation to land use in Aerotropolis precinct

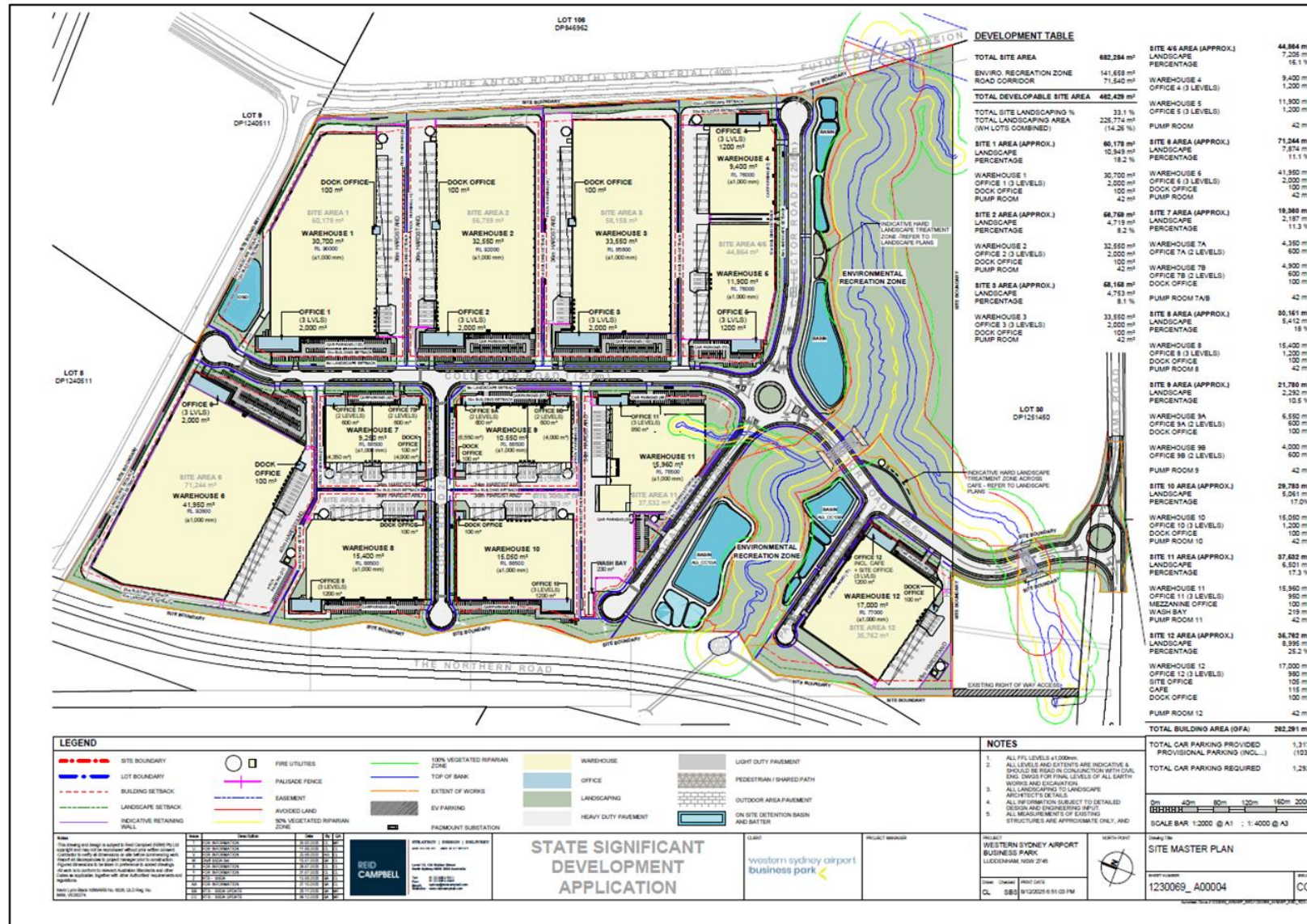


Figure 3: Proposed site master plan (Reid Campbell 2025)

2. Bushfire Hazard Assessment

2.1 Process

The site assessment methodology set out in Appendix 1 of PBP has been utilised in this assessment to determine the APZ requirements. Figure 4 and [Table 5](#) show the effective slope and predominant vegetation representing the highest bushfire threat potentially posed to the development from various directions.

2.2 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 (SVTM) (DCCEEW 2020) and validated from field site assessment (ELA 2023).

2.3 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.

2.4 Summary of Assessment

The vegetation within and adjacent to the site consists of PCT 3320 Cumberland Shale Plains Woodland, and PCT 4025 Cumberland Red Gum Riverflat Forest, respectively classified as 'grassy woodland' and 'forested wetland' under PBP. Unmanaged grassland comprises the remainder of the bushfire prone vegetation.

As shown in Figure 4 and [Table 5](#) the predominant bushfire threat potentially posed to the development is unmanaged grassland in all directions, and the riparian / open space corridor within the southern portion of the site. While the grassland hazard external to the site is considered temporary in nature and will be removed as the broader precinct is activated and further development occurs, timing of this development is undetermined.

Based on the proposed layout (Figure 2) and land use zoning, it is likely that revegetation will occur within the Environment and Recreation (ENZ) zoned land identified in the Western Parkland City SEPP (2021) and the Open Space / Stormwater Land identified in the Western Sydney Aerotropolis Precinct Plan (2023) and shown in Figure 3. While the current vegetation adjacent to the riparian corridor is unmanaged grassland, revegetation and proposed landscaping within the environmental recreation zone is most likely to resemble the PBP formation of 'grassy woodland'. This report adopts a conservative assessment and has applied the predominant PBP formation of 'grassy woodland' in assessing the future bushfire hazard from the environmental zone and riparian corridor. If the predominant PBP formation changes from that assessed this report will need to be updated to reflect this change. A number of onsite detention basins are proposed within the environmental recreation zone and while these are generally considered managed land, these have been assessed as part of the

predominant formation of 'grassy woodland'. The onsite detention basin north of Warehouse 1 has been assessed as managed land, however an APZ to the predominant grassland hazard is able to be provided.

As the proposed development is to be staged, there is potential for unmanaged grassland to pose a temporary bushfire hazard within the site until such time as the development proceeds and the hazard is removed. Temporary APZ will be provided as noted in Section 3.3.

The internal landscaping proposed within the site includes streetscape and carpark canopy trees, low plantings in carparks, managed gardens and windbreaks between lots (Figure 5). Perimeter landscaping along the western boundary is designed to provide visual screening however the predominant hazard to the west has been assessed as grassland with commensurate APZ applied.

It is recommended that the internal landscaped areas are subject to annual inspections and regular maintenance. Pruning of trees should occur where necessary to maintain 2 m separation from buildings.

The effective slope under the bushfire hazard vegetation falls into the slope category of '>0-5° downslope' and 'upslope and flat'.

It is expected that the site will be managed to Inner Protection Area (IPA) standards as development occurs except for the riparian corridor/ open space and the proposed internal landscaping, outside of any identified APZ (Figure 4).

Table 5: Bushfire hazard assessment, APZ requirements and BALs

Transect #	Slope	Vegetation Formation	Recommended APZ	Available APZ	Bushfire Attack Level (BAL)	Comments
Warehouses 1, 2 and 3						
2 (North)	>0° to 5° downslope	Grassland	12 m	≥12 m	BAL-29	APZ provided wholly within subject land boundary.
3 (East)	>0° to 5° downslope	Grassland	12 m	≥12 m	BAL-29	APZ provided wholly within subject land boundary.
Warehouse 4 and 5						
3 (East)	>0° to 5° downslope	Grassland	12 m	≥12 m	BAL-29	APZ provided wholly within subject land boundary.
*4 (South)	>0° to 5° downslope	Grassy and semi-arid woodland	16 m	≥16 m	BAL-29	APZ provided wholly within subject land boundary.
Warehouse 6						
1 (North)	>0° to 5° downslope	Grassland	12 m	≥12 m	BAL-29	APZ provided wholly within subject land boundary.
10 (West)	>0° to 5° downslope	Grassland	12 m	≥12 m	BAL-29	APZ provided wholly within subject land boundary.

Transect #	Slope	Vegetation Formation	Recommended APZ	Available APZ	Bushfire Attack Level (BAL)	Comments
11 (West)	All upslope and flat land	Grassland	10 m	≥10 m	BAL-29	APZ provided wholly within subject land boundary.
Warehouse 7, 8, 9, and 10						
9 (West)	>0° to 5° downslope	Grassland	12 m	≥12 m	BAL-29	APZ provided wholly within subject land boundary.
10 (West)	>0° to 5° downslope	Grassland	12 m	≥12 m	BAL-29	APZ provided wholly within subject land boundary.
Warehouse 11						
*7 (South)	>0° to 5° downslope	Grassy and semi-arid woodland	16 m	≥16 m	BAL-29	APZ provided wholly within subject land boundary.
9 (West)	>0° to 5° downslope	Grassland	12 m	≥12 m	BAL-29	APZ provided wholly within subject land boundary.
Warehouse 12						
*5 (East)	>0° to 5° downslope	Grassy and semi-arid woodland	16 m	≥12 m	BAL-29	APZ provided wholly within subject land boundary.
6 (South)	>0° to 5° downslope	Grassland	12 m	≥16 m	BAL-29	APZ provided wholly within subject land boundary.
*8 (North)	>0° to 5° downslope	Grassy and semi-arid woodland	16 m	≥16 m	BAL-29	APZ provided wholly within subject land boundary.

**Future hazard assessed as Grassy woodland.*

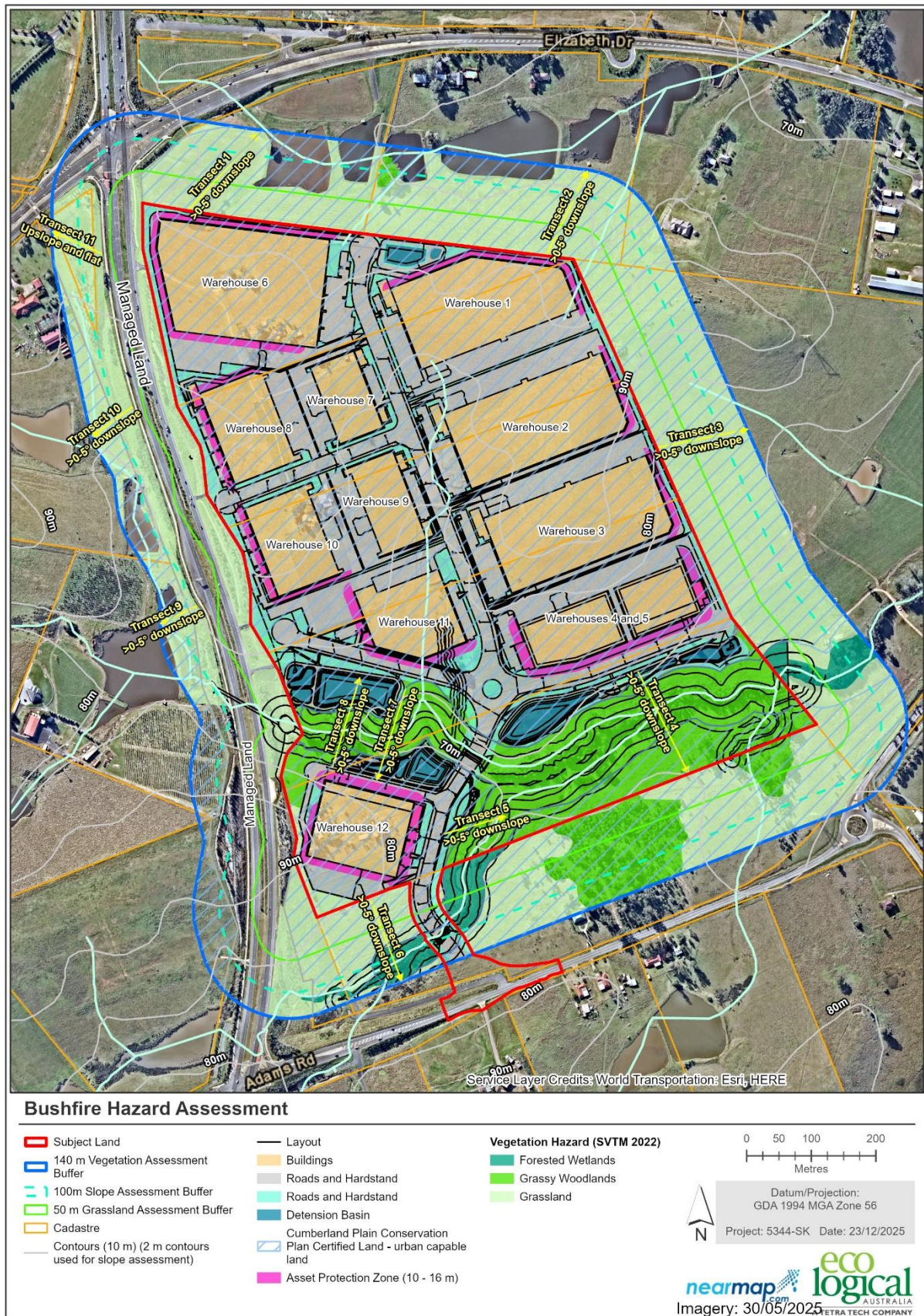


Figure 4: Bushfire Hazard Assessment



Figure 5: WSABP Landscape Masterplan (PDS 2025)

3. Bushfire Protection Measures

3.1 Specific Aim and Objectives for Industrial/Commercial Development

Below is the Aim and Objectives of PBP that are to be addressed for industrial/commercial development and a comment on how they are achieved. As directed in Section 8.3.10 of PBP, the BPM identified in Chapter 7 (of PBP) have been used as the baseline (where applicable), and either the acceptable solution or performance criteria has been achieved:

- **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 and internal perimeter access as shown in Figure 4 and [Table 5Table 5](#).
 - Future and existing public road networks to the north, east and south in addition to internal perimeter access around buildings will provide additional protection from exposure to bushfire.
 - 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/roads, large areas of hardstand and carparking around buildings and APZ as shown in Figure 4 and [Table 5Table 5](#).
- **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 both permanent and temporary bushfire hazard and buildings. Perimeter access roads are provided around all proposed buildings within the lots or by the proposed and future collector roads. Perimeter access around future buildings within lots allow emergency service personnel an adequate operational area for prevention of fire spread.
 - Collector roads are proposed between the bushfire hazards and buildings.
- **Specific Objective 4** - *ensure that appropriate operational access and egress for emergency service personnel and occupants is available;*
 - The development has direct access to Adams Road on the southern boundary affording safe operational access/egress to emergency services as shown in Figure 3 and Figure 4 and demonstrated further in Section 3.4. Internal access is provided by collector and local roads that exceeds the minimum perimeter road widths for subdivisions and all proposed buildings have perimeter access that provides through access to the collector and local roads.
- **Specific Objective 5** - *provide for ongoing management and maintenance of BPM; and*

- The identified APZ (Figure 4) will be designed and managed as an IPA as per the specifications outlined in Appendix A.
- **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.

3.2 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 3.4 of this report, the proposed development will have direct access to the existing public road Adams Rd in the south. All proposed properties within the site will have through access to the new public roads within the site 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 prepared for the buildings prior to Occupation Certificate. Details of bushfire emergency and evacuation arrangements for occupants/visitors to be contained within site specific emergency plans.
- **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 will be underground and complies with PBP. Supply of gas (if any) will be installed and maintained in accordance with Section 3.7 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.

3.3 Asset Protection Zones

~~Table 5~~Table-5 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 in Figure 4. The compliance of the proposed APZ with regards to Section 7.4 of PBP, is detailed in ~~Table 6~~Table-6.

Table 6: APZ requirements and compliance (adapted from Table 7.4a 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.	An APZ is provided in accordance with Table A1.12.2 in Appendix 1.	Complies APZ provided in accordance with Table A1.12.2 as shown

Performance Criteria	Acceptable Solutions	Compliance Notes
in Table 5 Table 5 and Figure 4 Figure 4 .		
APZs are managed and maintained to prevent the spread of a fire to 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. APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised.	APZs are wholly within the boundaries of the development site.	Complies APZ located wholly within the warehousing development site boundaries.
	APZ are located on lands with a slope less than 18 degrees.	Complies APZ is not located on slopes greater than 18°.

3.4 Access

Vehicular access is provided via a left in, left out intersection on The Northern Rd for early construction. Primary site access will be provided to the southern portion of the site from Adams Road and ultimately the site will connect with proposed Anton Road to the north-east as identified in the WSABP Masterplan (2025). Internal estate roads and associated intersections provide access to individual development lots with construction of internal driveways, hardstand and parking provided for each warehouse facility. The primary access from Adams Rd (Collector Road 3) and Collector Road 2 (south of Warehouse 4 and 5) provide for a minimum carriageway width of 18 m, and the central estate road (Collector Road 1) provides a minimum carriageway width of 8 m. Local Roads 1 and 2 provides for a minimum carriageway width of 7.5 m. Park Edge Road (NW of Warehouse 12) provides a minimum carriageway width of 10 m

Access to each of the proposed lots/ warehouses within the development is via driveways off the internal roads and each lot has two access/egress points. The roads within each lot provide for perimeter access around each of the proposed warehouses and are a minimum of 6 m however most are 9 to 11 m wide.

It is noted that while road widths for commercial and industrial development are not required to meet PBP perimeter or non-perimeter road specifications all roads within the proposed development are greater than 5.5 m with car-parking provided outside of the carriageway width.

The compliance of the proposed property access with Section 7.4 of PBP is detailed in ~~Table 7~~ **Table 7**.

Table 7: 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.	Property access roads are two-wheel drive, all-weather roads.	Complies Fire-fighting vehicles will be able to access all structures with proposed internal roads providing perimeter access to all structures. Road access is

Performance Criteria	Acceptable Solutions	Compliance notes
		also provided between structures and hazard vegetation.
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.	Can 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 2419.1:2021 [SA 2021]; 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.	Can comply Not applicable
Firefighting vehicles can access the dwelling and exit the property safely.	Minimum 4 m carriageway width; 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; A minimum vertical clearance of 4 m to any overhanging obstructions, including tree branches;	Complies >4 m carriageway width provided. Not applicable
	Provide a suitable turning area in accordance with Appendix 3 of PBP;	Can comply PBP compliant turning areas addressed in Appendix 3.
	Curves have a minimum inner radius of 6 m and are minimal in number to allow for rapid access and egress;	Can 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;	

3.5 Water Supplies

The compliance of the proposed water supply with Section 7.4 of PBP is detailed in [Table 8](#)~~Table 8~~.

Table 8: 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.	Can 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 2021); 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.	Can 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 2021).	
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.	

3.6 Electricity Services

The compliance of the proposed supply of electricity services with Section 7.4 of PBP is detailed in [Table 9](#).

Table 9: 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.	Where practicable, electrical transmission lines are underground; Where overhead, electrical transmission lines are proposed as follows: Lines are installed with short pole spacing (30 m), unless crossing gullies, gorges or riparian areas; and 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).	Can comply Electricity services to the development will be located underground. Not applicable.

3.7 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 10](#).

Table 10: 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	Reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 – The Storage and	Can comply The advice of a relevant authority or suitably qualified

Performance Criteria	Acceptable Solution	Compliance Notes
bushland or the fabric of buildings.	handling of LP gas (2014), the requirements of relevant authorities, and metal piping is used; All fixed gas cylinders are kept clear of all flammable materials to a distance of 10 m and shielded on the hazard side; Connections to and from gas cylinders are metal; Polymer-sheathed flexible gas supply lines are not used; and Above-ground gas service pipes are metal, including and up to any outlets.	professional should be sought, for certification of design and installation in accordance with relevant legislation, Australian Standards and Table 5.3c of PBP.

3.8 Construction Standards

The building construction standard is generally based on the determination of the BAL in accordance with Appendix 1 of PBP. The compliance of the proposed construction with Section 7.4 of PBP is detailed in [Table 11](#).

Table 11: 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 A1.12.6 of PBP; and	Complies BAL determined using Table A1.12.5 of PBP.
	Construction provided in accordance with the NCC and as modified by 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 3.8.2 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.	Can comply Specification detailed in Section 3.8.4 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.

3.8.1 Bushfire Attack Level (BAL)

The proposed development is exposed to a maximum of **BAL-29** as identified in [Table 5](#).

3.8.2 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 3.8.3 below.

3.8.3 Ember Protection Measures

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

- Ensure roof/wall junction is appropriately sealed using fire retardant or non-combustible materials to prevent ember penetration with no gaps >2 mm. This can be achieved with products such as mineral wool, sarking, capping, sealant, aluminium, steel or bronze mesh to ensure any gap is ≤ 2 mm aperture;
- Enclose all openings or cover openings with a non-corrosive aluminium, bronze or steel metal mesh with ≤ 2 mm aperture. Where applicable, this includes any sub floor areas, openable windows, vents, louvres, weepholes and eaves;
- 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 6~~Figure 6). 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.

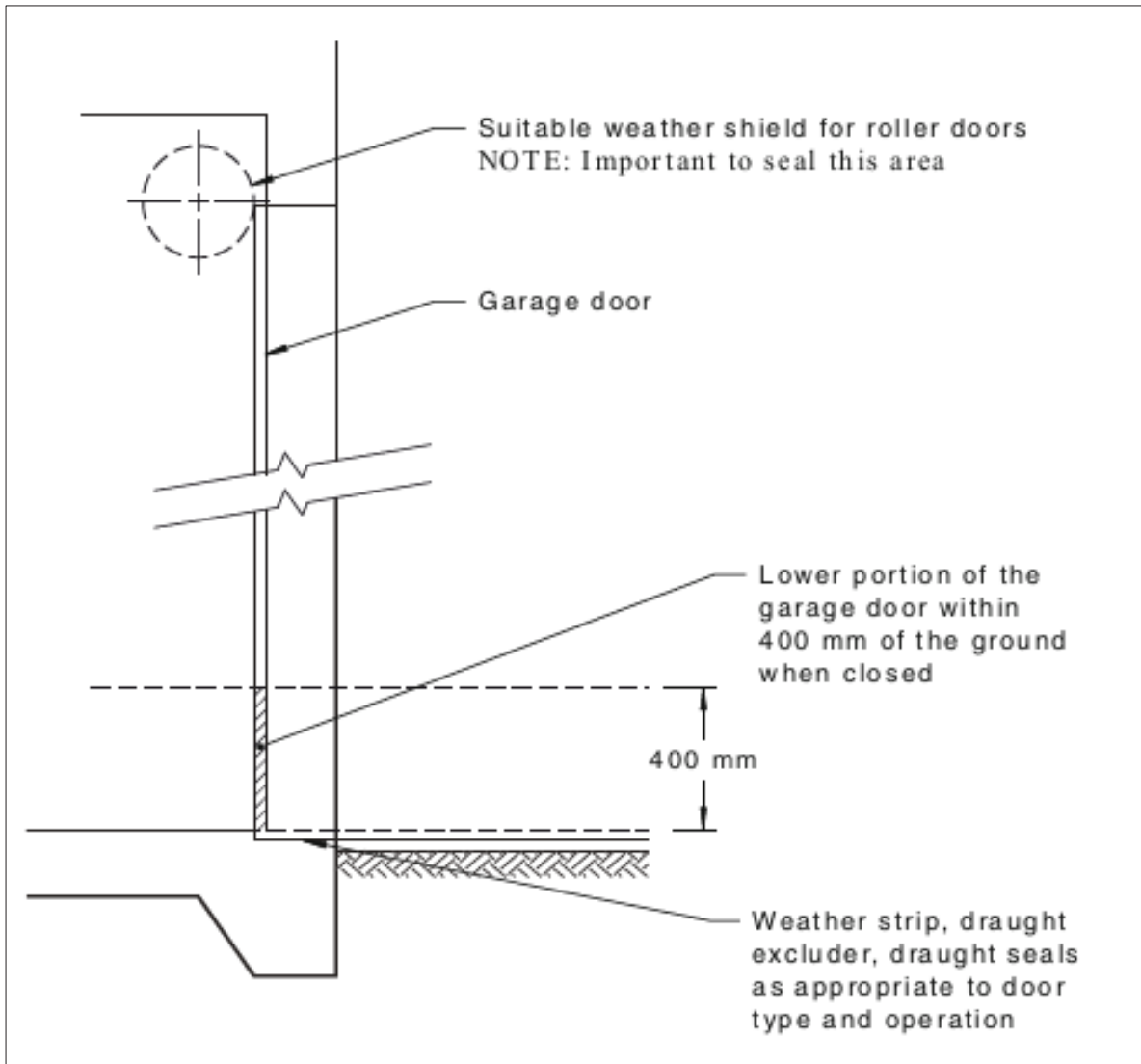


Figure 6: Roller shutter door installation (SA 2018)

3.8.4 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 connects directly to any proposed building or in areas of BAL-29 or greater, they should be made of non-combustible material.

3.9 Landscaping

Landscaping within the site includes the restoration of the riparian corridor, environmental recreation zones (including open space) and perimeter landscape buffers. Additional areas of internal landscaping are proposed along lot boundaries, within carparks, nature strips along site frontages and garden beds within individual lots. The proposed vegetation within the riparian corridor and environmental recreation zone has been assessed as bushfire hazard vegetation and residential APZ provided to the development. All proposed internal landscaping within the identified APZ (Figure 4) should be designed to meet IPA requirements. All other areas of landscaping, including the proposed riparian corridors and environmental recreation zones is excluded from meeting IPA requirements.

The compliance of the proposed landscaping with Section 7.4 of PBP is detailed in [Table 12](#).

Table 12: 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' (Appendix 4 PBP);	To comply Proposed landscaping within the identified APZ shown in Figure 4 is to be managed in accordance with PBP, as detailed in Section 3.9.
	A clear area of low-cut lawn or pavement is maintained adjacent to the house;	
	Fencing is constructed in accordance with Section 7.6 of PBP.	To comply Fencing to be constructed in accordance with Section 7.6 of PBP (see Section 3.8.4)
	Trees and shrubs are located so that: - the branches will not overhang the roof; - the tree canopy is not continuous; and - any proposed wind break is located on the elevation from which fires are likely to approach.	To comply Landscaping within the identified APZ is to be managed in accordance with PBP. Landscaping specifications provided in Appendix A.

3.10 Emergency Management

As per the requirement identified in specific objective 2 for Class 5-8 buildings (Section 3.2) and in order to meet the SEARS requirement, the development will need to prepare suitable emergency and evacuation (and relocation) arrangements for occupants of the development.

It is recommended that a Bushfire Emergency Management and Evacuation Plan (BEMEP) is prepared in accordance with relevant RFS guidance and is incorporated into emergency plans required by the relevant Work Health Safety Regulation and standards current at the time, prior to occupancy.

3.11 Staged Development

The future development of the subject land is proposed to be staged and bushfire protection measures such as temporary APZ of minimum width of 50 m, and perimeter access a minimum of 5.5 m wide against any bushfire hazard will be required to be addressed as development progresses.

4. Conclusion

The proposed development meets the specific objectives of 'Planning for Bush Fire Protection 2019', as outlined in [Table 13](#) below.

Table 13: Development Bushfire Protection Solutions and Recommendations

Bushfire Protection Measures	Recommendations	Acceptable Solution	Performance Solution	Report Section
Asset Protection Zones	APZ are to be provided to the proposed development as shown in Figure 4 of this report. <u>Landscaping within identified APZ only is to meet the IPA specifications of PBP.</u>	☐	☒	3.3
Access	Access to meet specific objectives as per Section 3.4 of this report.	☐	☒	3.4
Water supply	Reticulated water supply to meet PBP acceptable solution specifications.	☐	☒	3.5
Electricity service	Electricity supply located underground.	☐	☒	3.6
Gas service	Gas services are to be installed and maintained in accordance with AS/NZS 1596:2014.	☐	☒	3.7
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 3.8.2.	☐	☒	3.8
Landscaping	Proposed landscaping within the identified APZ only (Figure 4), is to be designed to meet the specifications of an IPA or low threat vegetation (A1.10 of PBP) and incorporate the landscaping principles identified in the RFS document Standards for Asset Protection Zones.	☐	☒	3.9
Emergency management	An emergency management and evacuation plan is provided prior to provision of subdivision certification and occupation.	☐	☒	3.10

5. Recommendations

It is recommended that the proposed development be approved with consent conditions based on the findings in [Table 13](#)~~Table 13~~.



Melinda Losh
Bushfire Consultant



Bruce Horkings
Principal Bushfire Consultant and Technical Lead
FPAA BPAD Accredited Practitioner No. BPAD29962-L3



6. References

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- Reid Campbell. 2025. *Western Sydney Airport Business Park Landscape Masterplan*, Dwg No. La-4, Rev A, dated 01 August 2025.
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- Standards Australia (SA). 2018. *Construction of buildings in bushfire-prone areas*, AS 3959:2018. SAI Global, Sydney.
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Appendix A - Asset protection zone and landscaping standards

The following APZ management specifications in ~~Table 14~~ **Table 14** apply to the APZs specified in ~~Table 5~~ **Table 5**. These APZ management specifications should be considered for any landscaping and ongoing management within the subject land.

The APZs identified in ~~Table 5~~ **Table 5** are to be maintained in perpetuity and management undertaken on an annual basis (as a minimum) and prior to the commencement of the fire season.

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

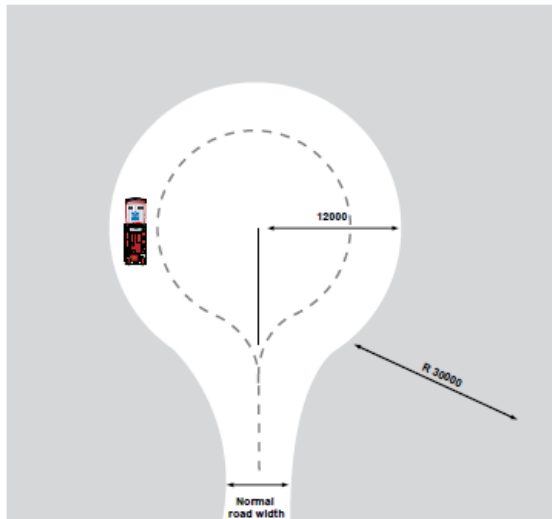
Table 14: APZ management specifications

Vegetation Strata	Inner Protection Area (IPA)
Trees	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	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	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.

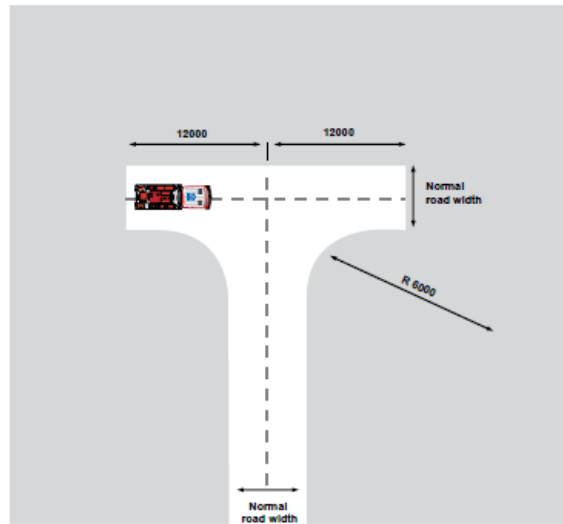
Appendix B - Emergency Service Vehicle Access

As per Appendix 3 of PBP (2019).

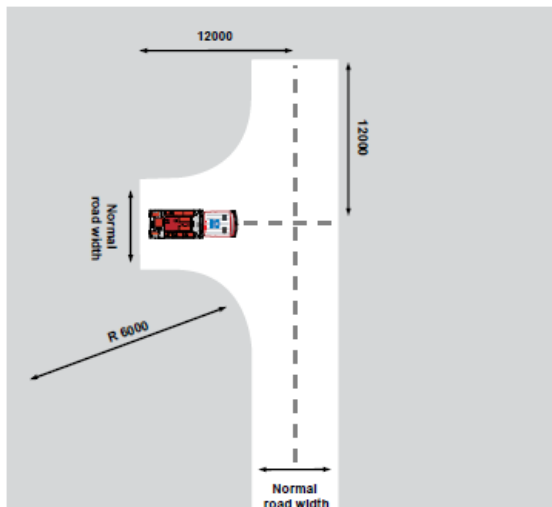
Type A



Type B



Type C



Type D

