

Bushfire Hazard Assessment for the EIS

Mamre Road Data Centre Campus
at 706–752 Mamre Road, Kemps
Creek, NSW 2178

Prepared for
Plan Project Management Pty Ltd



Version: 1.2
4 December 2025

Project Name:	Mamre Road Data Centre Campus
Site Details	706–752 Mamre Road Kemps Creek, NSW 2178
Client Details:	Plan Project Management Pty Ltd
Project No.	J4113
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1. Abbreviations

APZ	Asset protection zone
AS2419	Australian Standard – Fire hydrant installations
AS3745	Australian Standard – Planning for emergencies in facilities
AS3959	Australian Standard – Construction of buildings in bushfire-prone areas 2018
BAL	Bushfire Attack Level
NCC	National Construction Code
BFSA	Bush Fire safety authority
EP&A Act	Environmental Planning & Assessment Act 1979
EPA Reg	Environmental Planning and Assessment Regulation 2000
GTA	General terms of approval
PBP	Planning for Bush Fire Protection 2019
RF Act	Rural Fires Act 1997
RFS	NSW Rural Fire Service
RFR	Rural Fires Regulation 2013

2. Glossary

AS3959	Australian Standard AS 3959 Construction of buildings in bushfire-prone areas, Standards Australia, 2018, that outlines construction standards applicable to residential developments in bush fire prone areas
Bushfire Prone Area	An area of land that can support a bush fire or is likely to be subject to bush fire attack.
Infill Development	Refers to the development of land by the erection of or addition to a residential building (or buildings) which does not require the spatial extension of services including public roads, electricity or water and is within an existing allotment.



3. Property, Proposal & Summary

Address:	706-752 Mamre Road, Kemps Creek
Lot/ DP:	Lot 10 DP 1280592
Suburb, town or locality:	Kemps Creek
Local Government Area:	Penrith
Type of development:	Other (Industrial)
SEARs Application No.	SSD-92743706
Intended use	Industrial

4. Compliance with *Planning for Bush Fire Protection 2019*

Type of Development	Other
Aim of PBP	Yes
Objectives of PBP	Yes
Specific Objectives for Infill	Yes
BAL	Part BAL 12.5

BPAD Certification

Name Lew Short	I hereby certify, in accordance with Section 4.14 of the <i>Environmental Planning and Assessment Act 1979</i> that:	
Company Details & ABN Blackash Bushfire Consulting	<ul style="list-style-type: none"> I am a person recognised by the NSW Rural Fire Service as a qualified consultant in bushfire risk assessment; and the development conforms to the relevant specifications and requirements of <i>Planning for Bushfire Protection 2019</i>. 	
BPAD Accreditation Number BPA 16373	  Signature	Date 11 November 2025

5. Introduction

Blackash Bushfire Consulting has been engaged by Plan Project Management Pty Ltd to provide a Bushfire Hazard Assessment report for the Mamre Road Data Centre Campus at 706–752 Mamre Road, Kemps Creek, NSW 2178 (the site) which is at Figure 1. The proposed development and staging is at Figure 2.

The site is proposed for development under a State Significant Development Application (SSDA) as a data centre campus comprising:

- Approximately 26 shells across four-storeys data centre buildings (4x four shells and 2x five shells), including six technical office buildings, plus a campus office.
- Incoming and internal electrical substations and associated infrastructure
- Site preparation, including earthworks, stormwater, sewer, roads, and associated infrastructure.

The Planning Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Statement (EIS) to accompany the State significant development application (DA) for the proposed Mamre Road Data Centre Campus (SSD-92743706) were issued on 1 October 2025 and include:

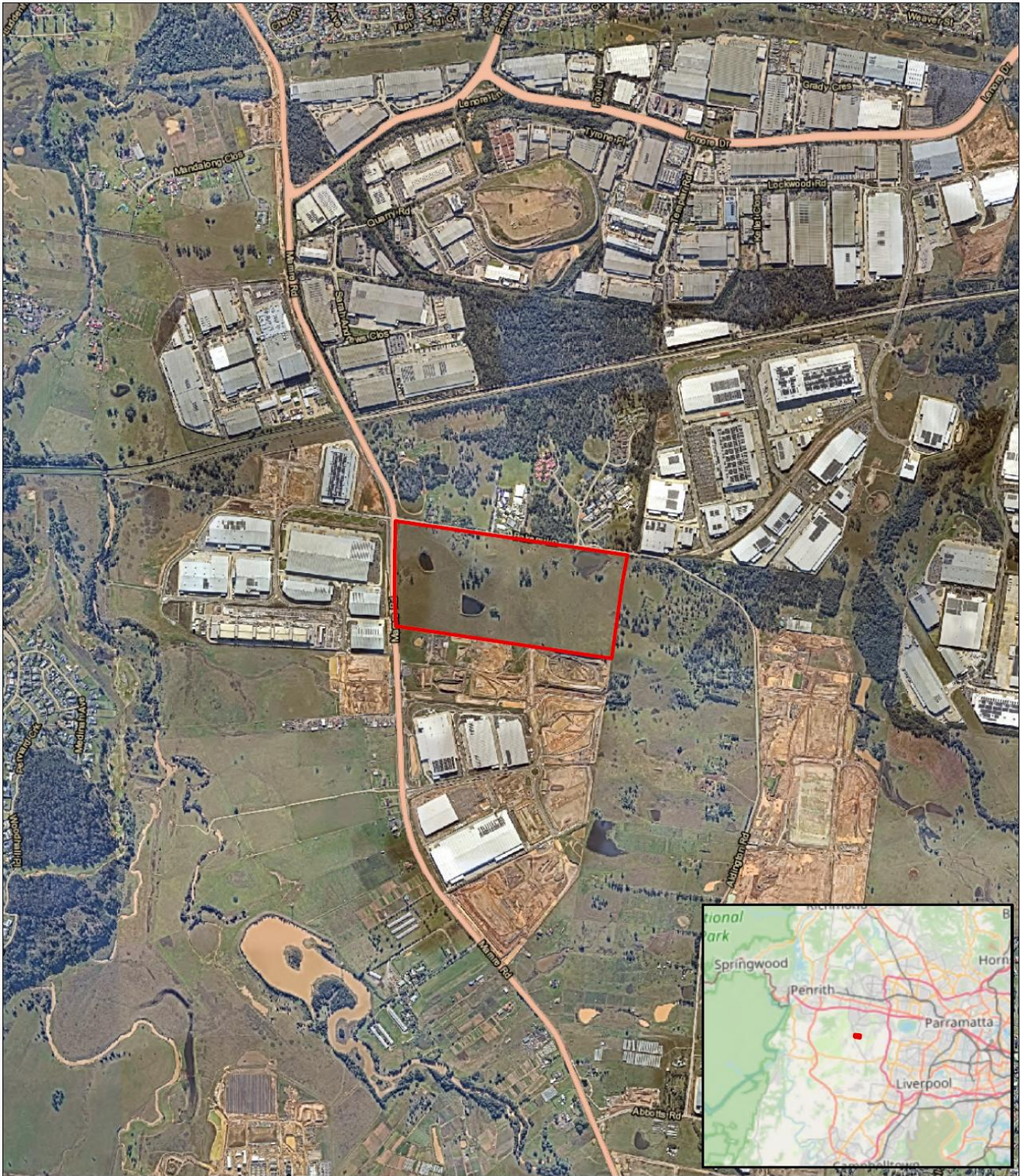
Table 1 SEARS Compliance

Section	Request Item	SEARS Compliance	Summary Response	Page Reference
Bushfire	<i>Bush Fire – a bush fire assessment report that addresses the aims and objectives of Planning for Bush Fire Protection (RFS, 2019).</i>	Yes	The Bushfire Hazard Assessment report provides the basis for determining compliance with the aim and objectives of <i>Planning for Bush Fire Protection 2019</i> . The summary table for compliance is at Section 15.	29
	<i>During the preparation of the EIS, you must consult with the relevant local, State or</i>	Yes	Meeting held with RFS Director Mathew Smith on 10	Online Teams meeting for consultation

	<p><i>Commonwealth Government authorities, service providers, community groups and affected landowners.</i></p> <p><i>NSW Rural Fire Service</i></p>		<p>November 2025.</p>	<p>with RFS.</p>
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The development will be delivered in stages based on demand, with planning approval sought via an SSDA (State Significant Development Application) for the entire campus. As the development proceeds, the retained vegetation (grassland) within the site will be removed for development associated with the Data Centre. Land within the site will be managed as an asset protection zone (APZ) which will be managed land and as such, it will not present a hazard to the development or adjoining lands.

This assessment has been prepared by Lew Short, Director Blackash Bushfire Consulting. Lew is a person who is recognised by the NSW RFS as a qualified consultant in bush fire risk assessment (FPAA BPAD-Level 3 Certified Practitioner No. BPAD16373). A site inspection was completed on 8 September 2025 by Lew Short.



Legend

 Subject Land



 **DKGIS**

Date: 8/09/2025

0 125 250

Metres

Coordinate System: GDA2020 MGA Zone 56

Imagery: © Nearmap

Figure 1 Location

6. Context

The project area for the proposed development, 706-752 Mamre Road, Kemps Creek (Lot 10 DP 1280592), constitutes the main development site with areas across the shared boundaries to the east and south (described below) utilised to facilitate roadworks and bulk earthworks:

- Gibb Group site to the East known as 1-22 Bakers Lane, Kemps Creek (Lot 40 in DP 709347).
- GPT Group site to the South known as 754 Mamre Road, Kemps Creek (Lot 180 in DP 1290397).

Additionally, power supply lead-in from Sydney-West Substation is proposed as part of the development, which traverses through multiple landholdings.

The site is bordered to the north by Barkers Lane and Mamre Anglican School (which includes the Little Smarties Early Learning Centre), Trinity Catholic Primary School, Emmaus Catholic College, and Emmaus Retirement Village. Land to the south is being developed for industrial purposes. Land to the west has already been developed for industrial purposes which is accessed by Mamre Road. Land to the east is currently modified for agricultural purposes and is to be developed for industrial purposes.

The proposal is categorised as a data centre, which falls within the group term 'light industries' which is permitted with consent in the IN1 General Industrial zone, pursuant to Chapter 2 of the Industry and Employment SEPP. Data centres are also permitted with consent in the IN1 General Industrial zone under the State Environmental Planning Policy (Transport and Infrastructure) 2021 (Transport and Infrastructure SEPP).

The proposed data centre campus represents critical digital infrastructure that underpins essential government, business and community services, including data storage, cloud computing, and continuity of operations for high-value and time-sensitive functions. Given its strategic importance and the potential consequences of service interruption, the project team has sought to minimise the bushfire risk through undergrounding of power infrastructure, landscape planning that provides APZ across the site, access within the site for Medium Rigid fire appliances and construction to BAL 12.5 to mitigate the potential impact of embers and radiant heat. These Bushfire Protection Measures (BPM) in combination ensures the facility can maintain functionality during bushfire events and safeguard critical data and network services that support the wider economy and community.

7. Legislative Framework

The site is on designated Bushfire Prone Land being Category 3 classified vegetation (grasslands) with a small area of Category 1 Classified vegetation (forest) on 61-109 Bakers Lane Kemps Creek (Figure 3). All new development on Bushfire Prone Land must comply with the RFS document PBP 2019.

The planning pathway is for a SSDA. An SSDA is assessed under Part 4, Division 4.7 of the Environmental Planning and Assessment Act, 1979 (EPA Act). The Department of Planning, Housing and Infrastructure (DPHI) (formerly DPIE) is the consent authority, with determination by the Minister or delegate. Section 4.14 of the EP&A Act requires consideration of bushfire risk for all development on bushfire prone land. As industrial development, the application is categorised as "Other" development in PBP and must meet the aim and objectives of that document.

PBP provides development standards for designing and building on bushfire prone land, requiring a suite of measures to reduce the impact of a bushfire. This will be required as a formal report for submission with the SSDA which will be provided by DPHI to the RFS for comment. NSW RFS typically provides detailed conditions relating to APZ management, building construction standards, access, water supply, and emergency procedures.

The requirements within PBP for Other development are minimal and often result in a higher bushfire risk being available to the asset, particularly for staged development where a residual risk will be retained until the site is fully developed and the hazard is removed. As such, the project team will need to consider the risk tolerance from bushfire attack (flame, embers, radiant heat and smoke) and put in place mitigation measures until the risk can be managed to an appropriate level. This would most likely involve management of grassland areas of the site within the undeveloped stages or from adjoining lands so a bushfire risk is not presented to the data centre.

The *Environmental Planning and Assessment Amendment Bill 2025* was released by the NSW Government on 16th September 2025. The Amendment Act seeks to give effect to the NSW Governments desire to improve the efficiency of the planning system. Among other matters, the Bill revises section 1.3 (Objects of the EPA Act) to realign the EP&A Act with contemporary priorities. Under the proposed amendments, the objects include (among others):

- promoting land uses that enhance social and economic welfare;
- advancing the supply, delivery and maintenance of housing (including affordable housing);

-
- fostering productivity through optimal use of state resources; protecting threatened species, ecological communities and their habitats;
 - increasing resilience to climate change and natural disasters via adaptation, mitigation, preparedness and prevention; and
 - promoting a proportionate and risk-based approach to planning and assessment.

Complementing these revised objects, the Amendment Bill introduces reforms to streamline decision-making, cut red tape, and strengthen the role of the Housing Delivery Authority and a new Development Coordination Authority, measures intended to improve efficiency and certainty in the approval of housing and other development.

While not in force, the Bill provides clarity from the NSW Government about the intent and actions required from government agencies. A key object of the *Amendment Bill* is to promote a proportionate and risk-based approach to planning and assessment. In the bushfire context, this objective requires the RFS to move beyond prescriptive, one-size-fits-all controls and ensure that development assessment and advice are matched to the actual level of bushfire risk presented by a site and its proposed land use. A proportionate approach avoids imposing excessive or unnecessary mitigation measures where the bushfire hazard is low or can be effectively managed through other design responses. It also recognises that resources and compliance costs should be directed to where they deliver the greatest improvement in life safety, property protection and community resilience.

Applying this principle supports good planning outcomes, enabling well-located and appropriately designed development while maintaining robust protection standards where risk is higher. For the RFS, this means applying the technical framework in *PBP* with flexibility and professional judgment, ensuring advice is evidence-driven and tailored to the specific hazard, rather than defaulting to the most restrictive controls regardless of site conditions.

The project team have work to provide a risk based approach to the PP while also meeting the requirements of PBP. As the Mamre Road Precinct Structure Plan (Figure 3) is implemented and built out, the bushfire risk within vicinity of the site will be removed, providing managed lands and industrial development to all aspects of the site.

7.1. Mamre Road Precinct Development Control Plan and Structure Plan

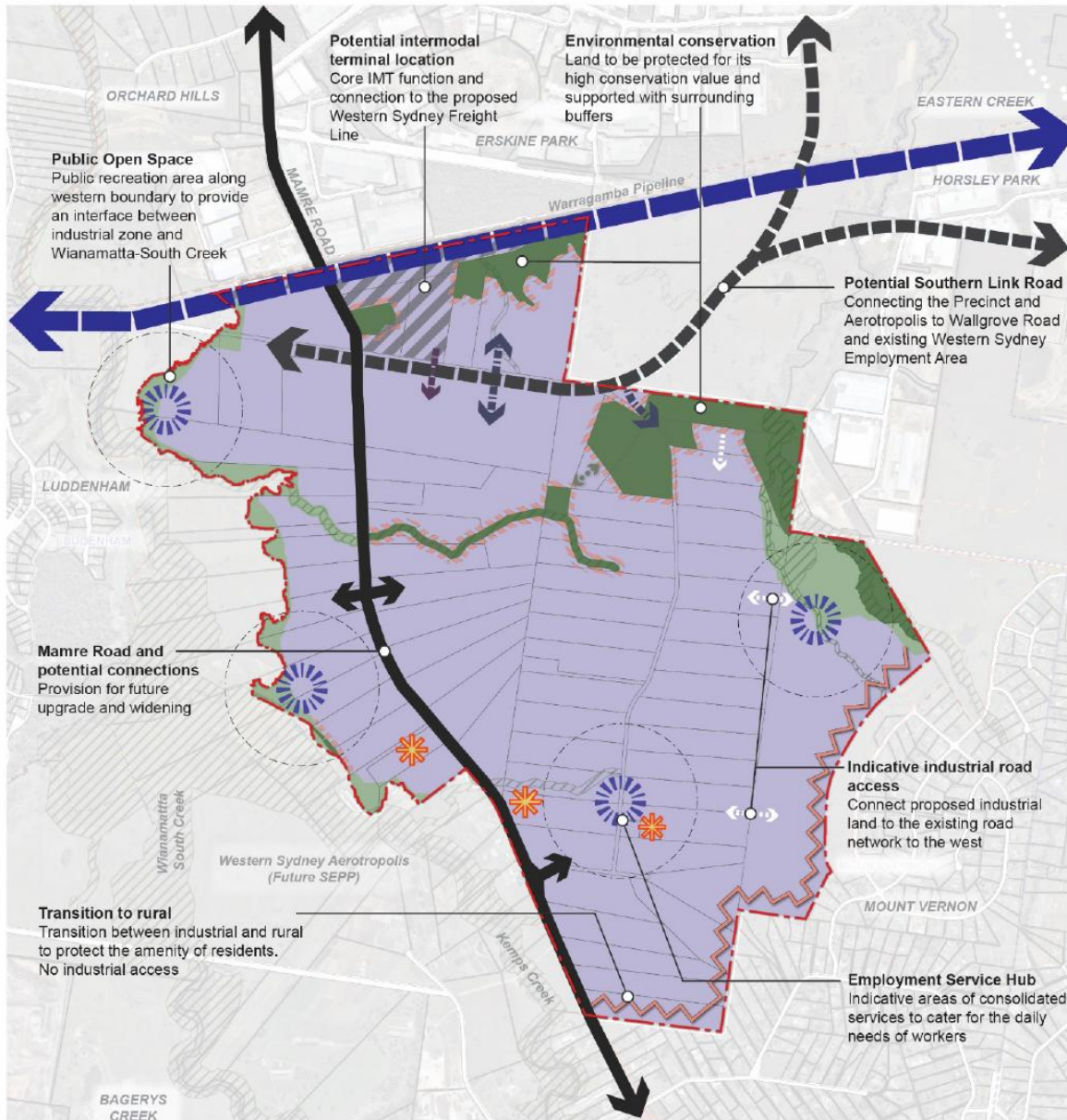
The Mamre Road Precinct is located within the Western Sydney Employment Area and was rezoned in June 2020. The precinct provides about 850 ha of industrial land which could accommodate approximately 5,200 construction jobs and 17,000 ongoing jobs when fully developed. The rezoning of the precinct preserves around 95 ha of land for environmental conservation and open space and protects a site for a potential Western Sydney freight intermodal terminal (IMT).

The Mamre Road Precinct Development Control Plan (DCP) 2021 has been prepared in accordance with Part 3, Division 3.6 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and the *Environmental Planning and Assessment Regulation 2000* (Regulation). The DCP was adopted by the Group Deputy Secretary, Planning Delivery and Local Government (under delegation from the Secretary) of the Department of Planning, Industry and Environment (DPIE) on 17 November 2021 and came into force on 19 November 2021.

This DCP applies to land within the Mamre Road Precinct as identified by *State Environmental Planning Policy (Western Sydney Employment Area) 2009*, which includes the site. The Mamre Road Precinct will be a world-class industrial area, primarily catering for warehousing and logistics on larger consolidated land parcels close to the Western Sydney Airport. The Mamre Road Precinct Structure Plan (refer Figure 2) forms the basis for urban development in the Precinct by setting out:

- The major road network and potential access points.
- A potential intermodal terminal and associated dedicated freight network to connect with the proposed Western Sydney Freight Line.
- The environmental, open space and drainage networks.
- The locations of critical infrastructure, including the Warragamba Pipelines.
- The proposed land uses including employment lands, utilities, service hubs and recreation.
- Areas requiring protection or special consideration of environmental, heritage or amenity values.

The proposal is consistent with the adopted planning framework for the Mamre Road Precinct, aligning with the intended land use outcomes, infrastructure planning and environmental considerations set out in the rezoning package. In addition, the development has been designed to meet the bushfire protection requirements of PBP and complies with its objectives and performance criteria, ensuring that the site achieves an acceptable level of bushfire risk mitigation in line with state planning policy.



Structure Plan

- | | | |
|--------------------------------------|--|---|
| Precinct boundary | Mamre Road and potential connections | Transition to rural |
| Cadastral boundaries | Potential Southern Link Road | Transition to Environmental Conservation |
| Industrial | Potential road access | Local heritage items |
| Environmental conservation | Potential freight connection to precinct | Indicative employment service hub (with 400m catchment) |
| Open space | Indicative road access | Opportunity for ecological corridor |
| Potential intermodal terminal | Indicative riparian buffers | |
| Proposed Western Sydney Freight Line | | |

Mamre Road Precinct
Structure Plan - June 2020

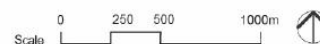


Figure 3 Mamre Road Precinct Structure Plan

8. Bushfire Prone Land

Bushfire prone land maps provide a trigger for the development assessment provisions and consideration of sites that are bushfire prone.

Bushfire prone land (BFPL) is land that has been identified by council, which can support a bushfire or is subject to bushfire attack. Bushfire prone land maps are prepared by local council and certified by the Commissioner of the NSW RFS.

Figure 4 shows the Bushfire Prone Land Map for the site. The site and surrounding area are identified as 'bushfire prone land' for the purposes of Section 10.3 of the EPA Act and the legislative requirements for new building on bushfire prone lands are applicable.

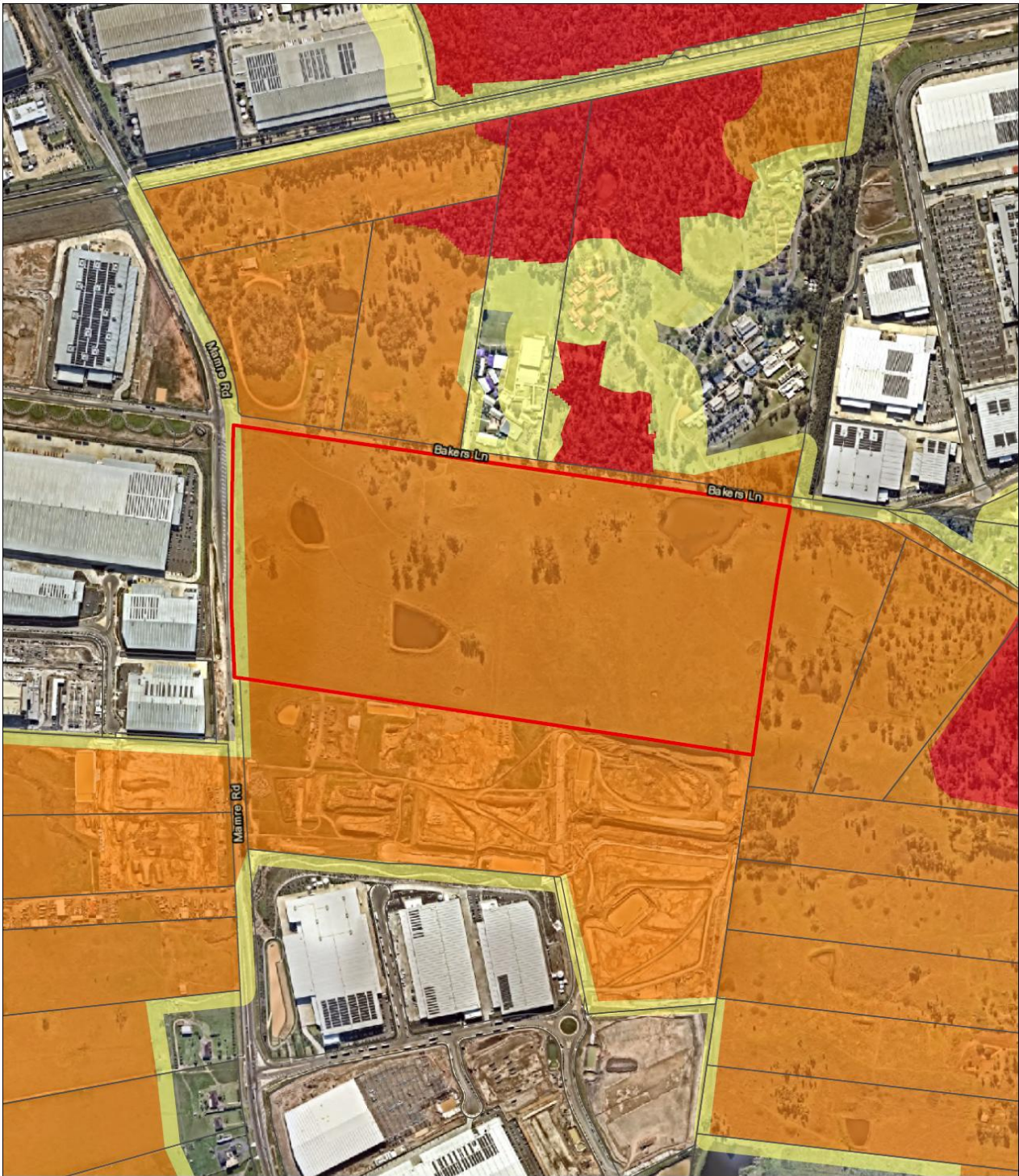
The site is designated as Category 3 with a small remnant area of Category 1 Bushfire Prone Land (woodland/ forest) on 61-109 Bakers Lane Kemp's Creek (Figure 4).

Bushfire protection measures are to be considered for all components of the proposed development and that these are to comply with PBP and any of its related documents. Section 1.4.1 of PBP says that:

"BPM's [Bush Fire Protection Measures] are the relevant specifications and requirements that need to be satisfied to improve life safety, property protection and community resilience to bush fire attack. They include: APZs [Asset Protection Zones]; Access; Construction, siting and design; Landscaping; Services; and Emergency and evacuation planning."

The development will be delivered in stages based on demand, with planning approval sought via an SSDA for the entire campus. As the development proceeds, the retained vegetation (grassland) within the site will be removed for development associated with the Data Centre. Land within the site will be managed as an asset protection zone (APZ) which will be managed land and as such, it will not present a hazard to the development or adjoining lands.

As the Mamre Road Precinct (see Section 7.1) continues to be progressively developed (Figure 3), the current bushfire hazard to the north of the site will be systematically reduced and ultimately removed through land use change, the establishment of employment, industrial and logistics facilities, and the creation of APZs and other managed landscapes. The transformation from undeveloped or vegetated land to an industrial precinct introduces hardstand, roads, and managed open space, breaking up fuel continuity and significantly decreasing/removing the potential for bushfire spread. This staged urbanisation, in accordance with the precinct planning controls and PBP, will ensure that the residual bushfire risk is minimised to a level consistent with tolerable risk and long-term land use objectives.



Legend

- Subject Land
- Bushfire Prone Land**
- Vegetation Category 1
- Vegetation Category 3
- Vegetation Buffer

N
 DKGIS
 Date: 10/09/2025
 0 125 250
 Metres
 Coordinate System: GDA2020 MGA Zone 56
 Imagery: © Nearmap

Figure 4 Bushfire Prone Land

9. Planning for Bushfire Protection 2019 Requirements

For “other” development, PBP requires that the aim and objective is met (p. 74).

The aim and objectives of PBP 2019 (p. 10):

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 objectives are to:

- *afford buildings and their occupants protection from exposure to a bush fire;*
- *provide for a defensible space to be located around buildings;*
- *provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;*
- *ensure that appropriate operational access and egress for emergency service personnel and occupants is available;*
- *provide for ongoing management and maintenance of BPMs; and*
- *ensure that utility services are adequate to meet the needs of firefighters*

PBP states (p. 76) that:

Under the building classification system within the NCC, Class 5 to 8 buildings include offices, shops, factories, warehouses, public car parks and other commercial and industrial facilities.

The NCC does not provide for any bush fire specific performance requirements for these particular classes of buildings. As such AS 3959 and the NASH Standard are not considered as a set of Deemed to Satisfy provisions, however compliance with AS 3959 and the NASH Standard must be considered when meeting the aims and objectives of PBP.

Whilst bush fire is not captured in the NCC for Class 5-8 buildings, the following objectives will be applied in relation to access, water supply and services, and emergency and evacuation planning:

- *to provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupant egress for evacuation;*
- *to provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development;*
- *to 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; and provide for the storage of hazardous materials away from the hazard wherever possible.*

Section 10 will demonstrate compliance with these requirements.

10. Bushfire Assessment Requirements

The subject land is identified as being bushfire prone land on the Bushfire Prone Land Map. The following detailed assessment is based on the methodology and requirements of PBP 2019 and supporting RFS policy.

PBP 2019 recognises the unique attributes of industrial development and promotes detailed site analysis and the application of a combination of bushfire protection measures (BPMs) to achieve an acceptable outcome.

The BPMs work in combination to provide a suite of measures that meet the aim and objective and Section 4.3 of PBP 2019. The BPMs are shown in Figure 4.

Appropriate combinations depend upon geographic location and site circumstances.

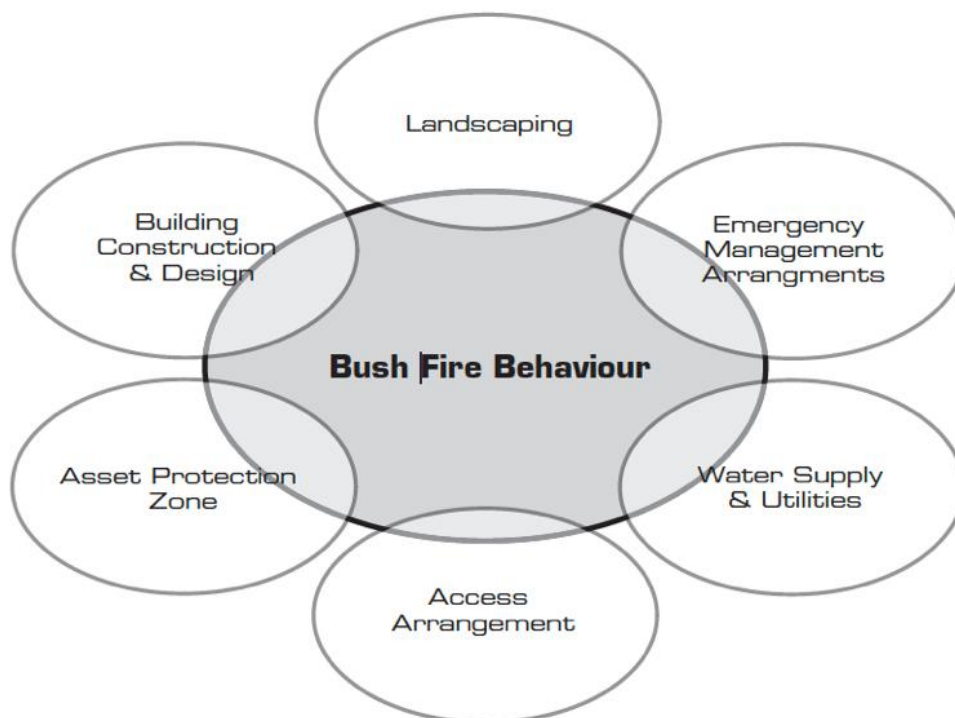


Figure 5 Bushfire Protection Measures in Combination (source PBP 2019 p. 26)

10.1. Methodology

PBP 2019 provides a methodology to determine the bushfire threat posed to a site and Australian Standards for the *Construction of Buildings in Bushfire Prone Areas (AS3959)* is used to determine the construction requirement to reduce potential bushfire attack.

The following assessment is prepared in accordance with PBP 2019 and Method 1 from AS3959. This assessment is based on a site inspection and detailed desktop assessment of the site utilising the following resources:

- *Planning for Bushfire Protection (NSW RFS, 2019)*;
- Aerial mapping;
- Site Inspection; and
- Detailed GIS analysis.

10.2. Bushfire Hazard

An assessment of the bushfire hazard is necessary to determine the application of bushfire protection measures such as Asset Protection Zone (APZ) locations and dimensions and future building construction requirements in accordance with AS3959. The vegetation formations (bushfire fuels) and the topography (effective slope) combine to create the bushfire threat that may affect bushfire behaviour at the site, and which determine the building response of PBP 2019.

10.3. Fire weather

The fire weather is dictated by PBP and assumes a credible worst-case scenario and an absence of any other mitigating factors relating to aspect or prevailing winds. The site has a Fire Danger Index (FDI) of 100 as per PBP 2019.

10.4. Vegetation

PBP provides a methodology to determine the bushfire threat from vegetation (Figure 7) that may cause bushfire attack at a site. An assessment of the Bushfire Prone Land is necessary to determine the application of bushfire protection measures such as risk, APZ locations and future building construction levels. The vegetation formations (bushfire fuels) and the topography (effective slope) combine to

create the bushfire threat that may affect bushfire behavior at the site, and which determine the planning and building response of PBP.

The vegetation formations refer to broad, distinct types or assemblages of plant communities identified within *Ocean Shores to Desert Dunes* (Keith 2004) which forms the basis of fire management within NSW. The vegetation formations share similar ecological characteristics and are typically found in specific geographic regions or under certain environmental conditions. These formations are often defined based on factors such as climate, soil, topography, and the dominant plant species present. Vegetation formations provide a way to classify and describe the diversity of plant communities across different landscapes.

The *Rural Fires Regulation* (RF Regulation) requires a classification of the vegetation on and surrounding the site (out to a distance of 140 metres from the boundaries of the site) in accordance with the system for classification of vegetation contained in PBP 2019.

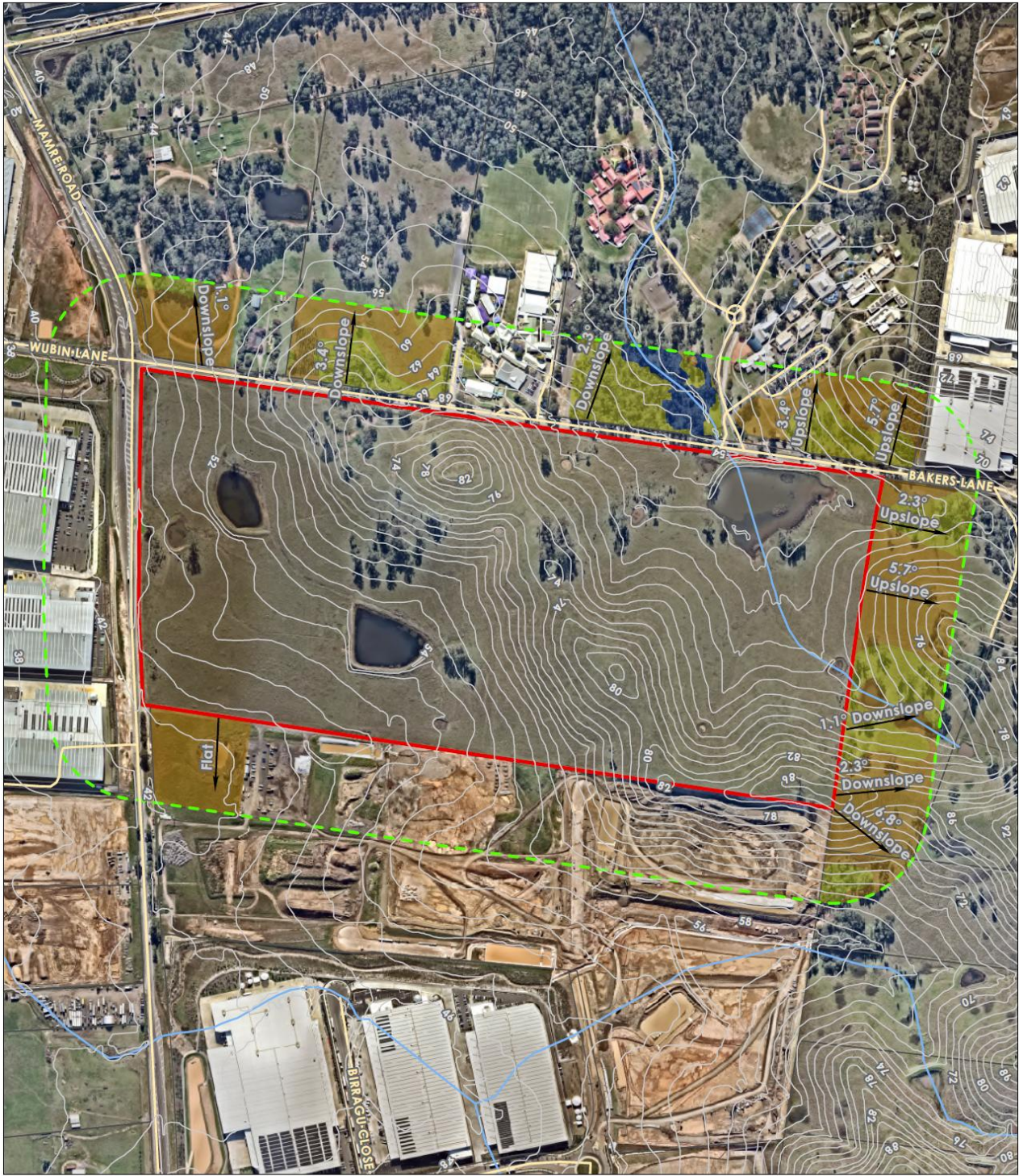
The site has been historically used for agricultural purposes and is already highly modified, with the existing vegetation comprising predominantly managed grassland interspersed with a small number of scattered remnant trees (Figure 7). This current landscape presents only a low to moderate bushfire hazard compared to more continuous native vegetation. As the proposed development proceeds, the remaining grassland fuel will be progressively removed and replaced with built form, hardstand, internal roads, and managed landscaping (Figure 6). These changes will break up fuel continuity, and remove the existing grassland hazard, resulting in a site that is consistent with the bushfire protection measures outlined in PBP and the broader precinct planning framework. Land which has been cleared and developed (built form) is "managed land" and does not constitute a bushfire hazard.

The vegetation along the northern side of Barkers Lane is highly fragmented and degraded, meaning that it consists of isolated patches of native or remnant vegetation interspersed with areas of cleared land, weed infestations, or disturbed soils. This fragmentation reduces the continuity of fuel loads, making it difficult for a bushfire to sustain itself over long distances or to reach a fully developed fire. Additionally, the degradation of the vegetation may result in a reduced presence of flammable species, lower fuel loads, and increased moisture content due to the influence of the watercourse. The combination of these factors limits the ability of the area to carry a fully developed bushfire, as fire spread requires sufficient, continuous fuel sources, favourable topography, and conducive weather conditions. However, localised fire activity may still occur where there are accumulations of dry fuel, such as leaf litter, fallen branches, or dense weed growth.

10.5. Slopes Influencing Bushfire Behaviour

Detailed slope mapping has been completed at Figure 7. The effective slope influences fire behaviour. The effective slope is the slope of the ground under the hazard (vegetation). Slope significantly influences bushfire behavior by affecting the speed and intensity of the fire spread. On steeper slopes, fires can accelerate more rapidly due to the alignment of winds with the slope, creating an upslope-driven convection that preheats the vegetation and dries the fuels. The increased rate of fire spread on uphill slopes is attributed to the additional energy provided by the upslope winds. Additionally, the steeper the slope, the more challenging it is for firefighting efforts as the fire can advance more quickly, making containment efforts more difficult.

Conversely, on downhill slopes, fires may slow down due to reduced wind alignment and decreased preheating of fuels. Overall, slope plays a critical role in shaping the behavior of bushfires, influencing their rate of spread and the challenges faced by firefighting and mitigation efforts. Slope across the site are moderate. The slopes are shown in Figure 7.



Legend

- Contour - 2m
- Road Segment
- Watercourse
- Vegetation Assessment Buffer - 140m
- Subject Land
- Cadastre
- Vegetation Formation**
- Dry Sclerophyll Forests (Shrub/grass sub-formation)
- Forested Wetlands
- Grassy Woodlands
- Grassland

Date: 8/09/2025

Coordinate System: GDA2020 MGA Zone 56
 Imagery: © Nearmap

Figure 7 Vegetation and Slope

11. Asset Protection Zones

An Asset Protection Zone (APZ) is a buffer zone between a bushfire hazard and buildings. The APZ is managed progressively to minimise fuel loads and reduce potential radiant heat levels, flame, smoke and ember attack. The appropriate APZ distance is based on vegetation type, slope and the nature of the development.

The APZ can include roads or properties managed to be consistent with APZ standards set out in NSW RFS document *Standards for Asset Protection Zones*. The APZ provides a fuel-reduced, physical separation between buildings and bushfire hazards is a key element in the suite of bushfire measures and dictates the type of construction necessary to mitigate bushfire attack.

PBP 2019 requires APZs for commercial and industrial development to provide a defensible space and minimise material ignition.

The site will be managed and maintained to prevent the spread of a bushfire towards the building and to prevent the spread of fire onto or from the site in accordance with section 63 of the *Rural Fires Act, 1997* (RF Act). The area around the building is cleared and maintained to mineral earth or non-combustible surfaces and is not a fire hazard. Charter Halls asset team manages the landscape regularly and land within the site that is not remnant forested wetland is managed land and does not present a hazard.

PBP requires that industrial development are built to prevent the spread of fire to the building and is based on a radiant heat level of 40kW as the acceptable solution. Table A1.12.5 of PBP 2019 has been used with the slope and vegetation to determine the required APZ at 40kW. Table 2 provides a summary of the APZ for the proposed development.

Table 2: APZ Assessment.

Direction	Slope	Vegetation	Minimum APZ required from PBP for BAL 40
North	1.1° to 3.4° downslope	Modified; grassy woodland; grassland; forested wetland.	9m grassland 12m grassy woodland 9m forested wetland
East	Flat	grassland	9m
South	NA	No hazard, modified lands	Nil
West	NA	No hazard	Nil

*Note: The extent of the Flame Zone for the building is based on Radiant Heat Modelling (see section 11.1.1).

12. Bushfire Attack Levels

The Bushfire Attack Level (BAL) is a means of measuring the severity of a buildings or sites potential exposure to ember attack, radiant heat and direct flame contact. In the Building Code of Australia, the BAL is used as the basis for establishing the requirements for residential construction to improve protection of building elements.

The Bushfire Attack Levels to the site has been completed using the distances from the PBP 2019 Table A1.12.5 (Table 3). The BAL for the site is shown in Figure 8.

As "Other" development, the development must comply with objective 3 of PBP 2019 which requires that the development:

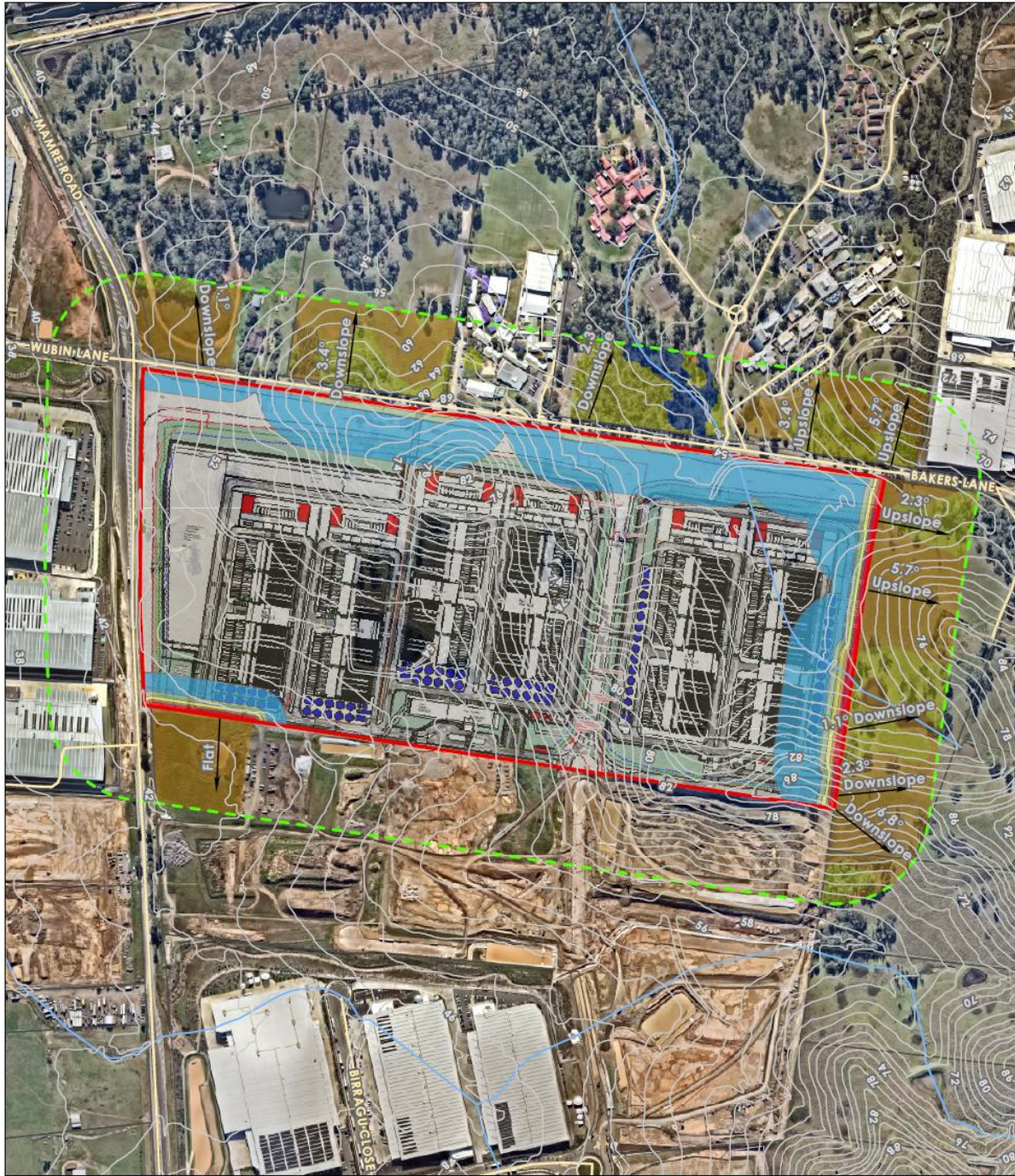
3. Provide appropriate separation between a hazard and buildings, which, in combination with other measures, prevent the likely fire spread to buildings.

Asset Protection Zones (see section 11) will be provided around the development that include existing roads, development, and managed land. Table 3 provides a summary of the BALs, and Figure 8 depicts the BAL requirements across the site. Setbacks for the Southern Link Road are provided to the north of the site which will be managed as an APZ until construction of the Link Road.

Table 3: Bushfire Attack Levels.

Direction	Slope	Vegetation	APZ Proposed	Bushfire Attack Level
North	NA	Modified; grassy woodland; grassland; forested wetland.	>100m	See Figure 8
East	Level	grassland	>20 metres	See Figure 8
South	NA	No hazard, modified lands	Nil	See Figure 8
West	NA	No hazard	Nil	See Figure 8

*Note: The extent of the BAL for the building is depicted in detail in Figure 8.



Legend

Contour - 2m	Cadastral	Grassy Woodlands	BAL - 29
Road Segment	Vegetation Formation	Grassland	BAL - 19
Watercourse	Dry Sclerophyll Forests (Shrub/grass sub-formation)	Bushfire Attack Level (BAL)	BAL - 12.5
Vegetation Assessment Buffer - 140m	Forested Wetlands	BAL - Flame Zone	
Subject Land		BAL - 40	

Date: 10/09/2025

0 50 100 Metres

Coordinate System: GDA2020 MGA Zone 56

Imagery: © Nearmap

Figure 8 Bushfire Attack Level

12.1. Application of AS3959 (2018)

Construction should comply with the corresponding Bushfire Attack Level (BAL) as shown in Figure 8.

The application of each BAL is as defined in Figure 8 and not broadly applied across the entire elevation/building. The construction must comply with corresponding sections of the Australian Standard AS3959-2018 *Construction of buildings in bush fire-prone areas* or NASH Standard (1.7.14 updated) *National Standard Steel Framed Construction in Bushfire Areas – 2014* as appropriate, and Section 7.5 of *Planning for Bush Fire Protection 2019*.

The construction for the remainder of the proposed buildings not denoted with a BAL in Figure 8 is greater than 100 metres from any bushfire hazard. Consistent with AS3959, construction greater than 100 metres from a bushfire hazard is classified as BAL-Low. AS3959 describes BAL-Low as “There is insufficient risk to warrant specific construction requirements”. Therefore, the construction for the remainder of the proposed building not denoted with a BAL in Figure 8, is appropriately BAL-Low.

The construction of the buildings in this manner complies with *PBP 2019* and the National Construction Code (NCC).

13. Water Supply and Utilities

PBP 2019 (p. 47) requires that adequate services of water for the protection of buildings during and after the passage of a bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building.

892kL on site fire water storage comprising 2 x 446kL tanks will be provided on site. This is a suitable water supply arrangements provided for firefighting that meet the NSW RFS requirements. A reticulated water supply for potable water supply and fire hydrants will be provided to the site. The fire-fighting water supply to the proposed buildings shall comply with the Building Code of Australia [BCA] and AS. 2419.1–2021.

The site will be supplied by minimum 3 x 330kv underground power lines for the site.

14. Access

PBP 2019 requires that the design of access roads enables safe access and egress for people attempting to leave the area while emergency service personnel are arriving to undertake firefighting operations.

Figure 2 shows the site plan which includes the access to the site.

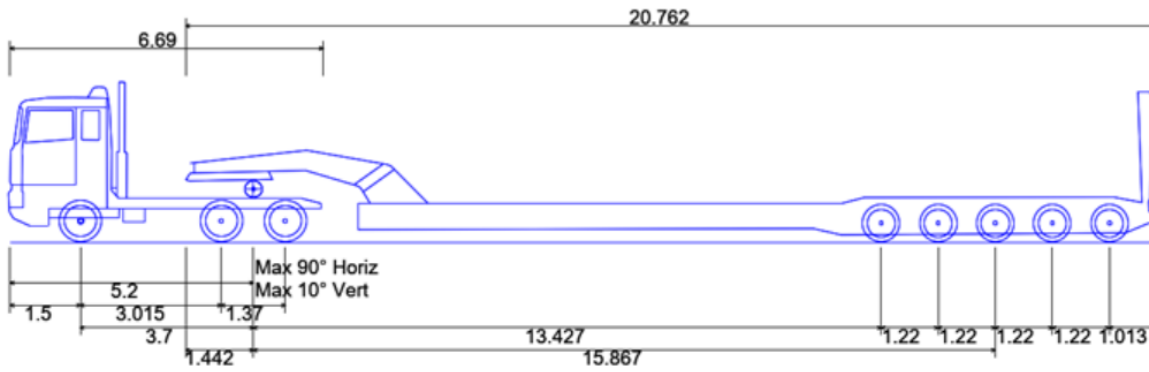
The existing public road access is designed for heavy industrial traffic and the roads in the surrounding area link into a broader road network that cannot be compromised by bushfire.

The internal access and roads will be constructed to provide heavy rigid and articulated vehicle access to the proposed campus for a 20m low-loader articulated vehicle (Figure 9) as provided by the Principal Transport Planner at Ason Group. This design is more than adequate to accommodate fire-fighting appliances like NSW RFS Category 1 Tankers and Fire & Rescue NSW Composite and Aerial Appliances.

All traffic will use a new four-leg roundabout on Berriverri Drive (Figure 10). Internal access, circulation and loading have been designed to meet AS2890 standards, with swept path analysis confirming accommodation of 20 m Articulated vehicles, HRVs, MRVs, and fire truck access.

A defensible space is provided through onsite setbacks and hardstand areas that are available for B-doubles which are a class 2 heavy vehicle that consist of a prime mover towing two semitrailers. The road design provides access around the Data Centre Development and to the bushfire prone vegetation within the corridor along the northeastern boundary. This is provided by a perimeter road.

Given the comprehensive nature of the road design, access complies with the requirements of PBP 2019.



Truck and integrated load	
Overall Length	24.520m
Overall Width	6.000m
Overall Body Height	3.420m
Min Body Ground Clearance	0.158m
Max Track Width	4.270m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

Figure 9 Low Loader

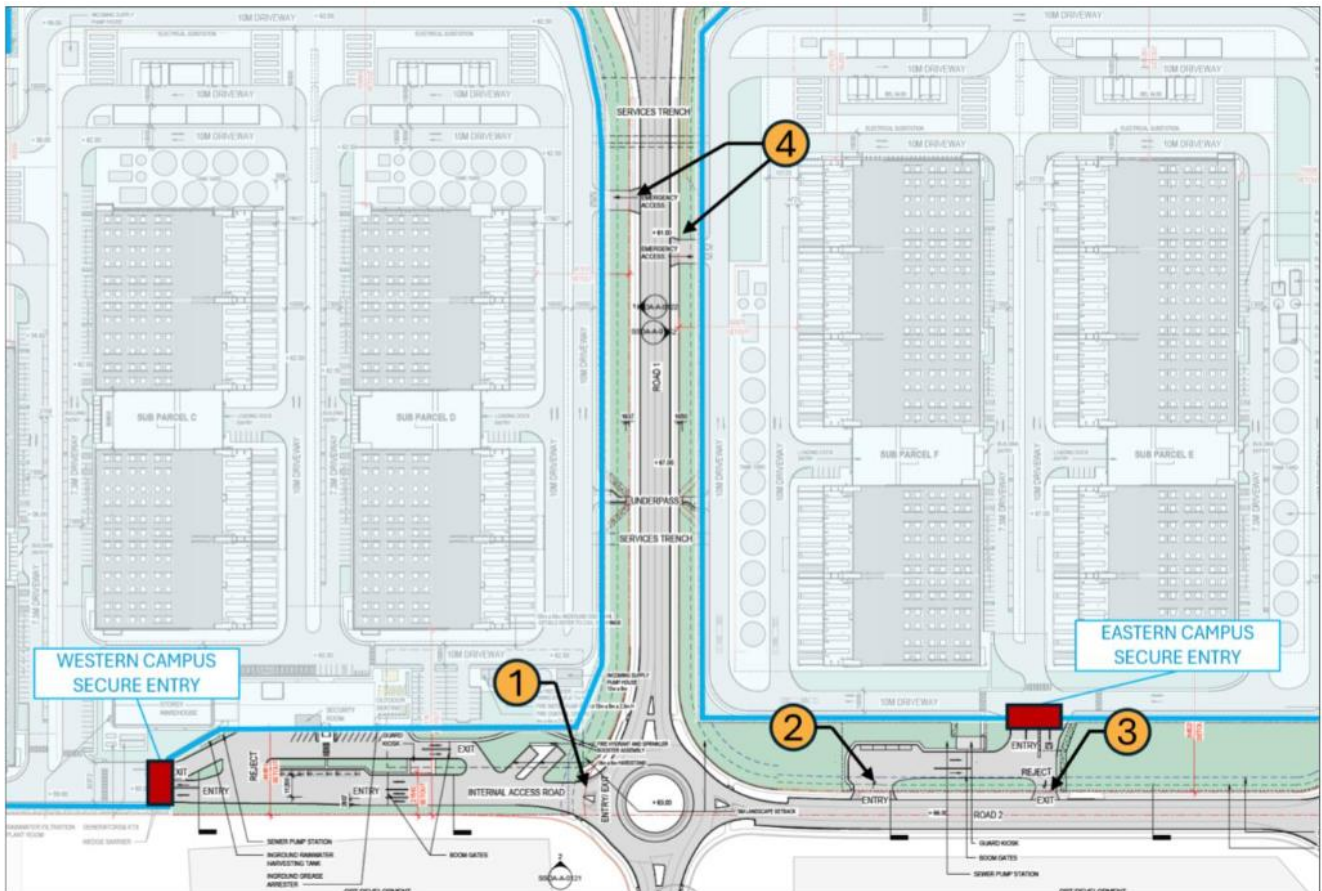


Figure 10 Access for the site

15. Hazardous Materials

The proposed development includes aboveground diesel storage to support the data centre's backup power generation systems. Given the flammable nature of diesel fuel and its potential to contribute to ignition and fire propagation, the design and operation of this infrastructure will incorporate comprehensive bushfire risk mitigation measures.

The diesel tanks, interconnecting pipework, and associated components such as valves will be designed with fail-safe containment and automatic isolation mechanisms to prevent and control any potential spill or fuel release during normal operation or emergency conditions. In addition, the facility will be equipped with appropriate first response firefighting, ensuring the risk of ignition, escalation, and offsite impact is minimised. Bulk storage fuel for generator comply with AS1940, AS1692 and AS4041. Day tanks serving each individual generator onsite.

The ongoing operation of the facility will include maintenance and compliance requirements consistent with *AS1940 – The Storage and Handling of Flammable and Combustible Liquids*. This will encompass:

- Regular inspection, maintenance, and testing of storage infrastructure and containment systems;
- Implementation of a site-specific Emergency Response Plan detailing operational procedures during fire or spill events;
- Comprehensive spill and leak management, prevention, and response protocols; and
- Maintenance, testing, and operational readiness of fire protection systems and associated safety equipment.

Collectively, these measures ensure the facility operates safely, maintains compliance with relevant Australian Standards, and effectively minimises bushfire-related and operational fuel hazards throughout its lifecycle.

16. Assessment Against the Aim and Objective of PBP

All development in Bushfire Prone Areas needs to comply with the aim and objectives of PBP. Table 4 shows the compliance with PBP.

Table 4: Compliance with Aim & Objectives of PBP.

Aim	Meets Criteria	Comment
The aim of PBP is to use the NSW	Yes	Landscaping, defensible space, access and egress,

development assessment system to provide for the protection of human life (including fire fighters) and to minimise impacts on property from the threat of bushfire, while having due regard to development potential, onsite amenity and the protection of the environment.		emergency risk management and construction standards are in accordance with the requirements of PBP and the aims of PBP have been achieved.
Objectives	Meets Criteria	Comment
Afford occupants of any building adequate protection from exposure to a bushfire.	Yes	The development provides opportunity for all occupants to be shielded from any external bushfire. Construction will comply with the NCC and AS3959 (2018).
Provide for a defensible space to be located around buildings.	Yes	Defensible space is provided around the building.
Provide appropriate separation between a hazard and buildings, which, in combination with other measures, prevent the likely fire spread to buildings.	Yes	The building is separated from the vegetated areas and provide APZs and commensurate construction in accordance with the NCC.
Ensure that safe operational access and egress for emergency service personnel and occupants is available.	Yes	The site has direct access to public roads, and access and egress for emergency vehicles and evacuation is adequate.
Provide for ongoing management and maintenance of bushfire protection measures.	Yes	The site will be managed including all APZ and landscaping in accordance with PBP 2019.
Ensure that utility services are adequate to meet the needs of firefighters.	Yes	Utility services are adequate to meet the needs of firefighters (and others assisting in bushfire fighting).

The suite of bushfire protection measures provided for the proposed development satisfies the objectives for buildings of Class 5-8 under the NCC as identified in section 8.3.1 of PBP 2019.

17. Recommendations

The following recommendation has been made within this report to ensure the proposed new development is compliant with Section 4.14 of the EPA Act and *Planning for Bush Fire Protection 2019* and that this is a consideration for any future design changes:

Recommendation 1: At the commencement of building works and in perpetuity, the site shall be maintained as an Asset Protection Zone. The APZ shall be established and maintained as an inner protection area as outlined within *Planning for Bushfire Protection 2019* and the NSW RFS document 'Standards for Asset Protection Zones'.

Recommendation 2: Fire hydrants are provided in accordance with Building Code of Australia E1.3, AS2419.1:2005, including the ring main requirements for large, isolated buildings and those identified in Section 9.

Recommendation 3: The part of buildings affected by BAL (Figure 8) is to be constructed to comply with the National Construction Code (2019), Australian Standard AS 3959:2018, *Construction of buildings in bush fire-prone areas* and/or NASH Standard (1.7.14 updated), *National Standard Steel Framed Construction in Bushfire Areas – 2014*, and Section 7.5 of *Planning for Bush Fire Protection 2019* on a prescriptive (deemed to satisfy and/or acceptable solution) basis and/or performance basis to the extent depicted in Figure 8.

Recommendation 4: All proposed roads within the site must comply with section 5.3.2 of *Planning for Bush Fire Protection 2019* as appropriate.

Recommendation 5: Diesel fuel storage infrastructure, including tanks, interconnecting pipework, and associated fittings such as valves, must incorporate fail-safe automatic containment and isolation mechanisms to prevent and contain any fuel spill or release. Regular inspection, maintenance, and testing of all diesel storage infrastructure and containment systems must be undertaken in accordance with AS1940. A site-specific Emergency Response Plan must be prepared and implemented, outlining procedures for bushfire, spill, and other emergency events. Comprehensive spill and leak prevention, management, and response measures must be implemented and periodically reviewed to ensure ongoing effectiveness.

18. Conclusion

This assessment has demonstrated that the proposed industrial development can comply with *Planning for Bush Fire Protection 2019*. The recommendations have been provided to ensure compliance with *Planning for Bush Fire Protection 2019*.

The proposal is consistent with the adopted planning framework for the Mamre Road Precinct, aligning with the intended land use outcomes, infrastructure planning and environmental considerations set out in the rezoning package. In addition, the development has been designed to meet the bushfire protection requirements of PBP and complies with its objectives and performance criteria, ensuring that the site achieves an acceptable level of bushfire risk mitigation in line with state planning policy.

The proposed development has been designed to provide compliance with the relevant specifications and requirements of *PBP 2019*.

As a person recognized by the NSW RFS as a qualified consultant, this report /certificate confirms that the proposed development conforms to the relevant specifications and requirements of *Planning for Bush Fire Protection 2019* and is issued consistent with s4.14 (1)(b) of the *Environmental Planning and Assessment Act 1979*. Having been provided with a certificate by a person who is recognised by the NSW RFS as a qualified consultant, the consent authority is therefore legally satisfied that the development complies with PBP 2019 and cannot refer to the NSW RFS under Under s4.14 (1A) of the *Environmental Planning and Assessment Act 1979*.

Given this, there is no further assessment or referral required.



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Fire Protection Association of Australia BPAD Level 3 – 34603

Appendix 1: References

Australian Building Codes Board Building Code of Australia Volumes 1&2

Councils of Standards Australia AS3959 (2018) – Australian Standard Construction of buildings in bushfire-prone areas

Keith, David (2004) – Ocean Shores to Desert Dunes – The Native Vegetation of New South Wales and the ACT. The Department of Environment and Climate Change

NSW Rural Fire Service (2015) Guide for Bushfire Prone Land Mapping

NSW Rural Fire Service (NSW RFS). 2019. Planning for Bushfire Protection: A Guide for Councils, Planners, Fire Authorities, Developers and Home Owners.

NSW Government (1979) Environmental Planning and Assessment Act 1979. NSW Government Printer

NSW Government (1979) Environmental Planning and Assessment Amendment Act 2025. NSW Government Printer

NSW Government (Nov 2021) Mamre Road Precinct Development Control Plan 2021