

Attachment 5



Bushfire Management Plan

196 Bushmead Road Hazelmere

March 2026



LIMITATIONS STATEMENT

This Bushfire Management Plan ('BMP') has been prepared in support of a data centre at 196 Bushmead Road Hazelmere. The site is located within the City of Swan (decision maker).

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Version Control

196 Bushmead Road Hazelmere			
Version	Date	Author	
V1	20 February 2026	Anthony Rowe	Draft
V2	4 March 2026	Anthony Rowe	Revised architectural drawings
V3	10 March 2026	Anthony Rowe	

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Importantly the measures contained in this report cannot guarantee human safety or an absence of harm or that the building will not be damaged or would survive a bushfire event on every occasion. This is due to the unpredictable nature of fire behaviour (knowledge in this field continues to develop) and the unpredictable nature of extreme weather conditions.

Scope of this report

The scope of the assessment has been to assess the proposal for compliance with the policy measures described in State Planning Policy 3.7.

The investigations and mitigation measures identified in the BMP, have formed the basis for the preparation of a Bushfire Emergency Evacuation Plan.

Client relationship

I was engaged to provide expert bushfire safety and planning advice. My relationship with the client is a standard commercial contract, and no private, personal, or other matter has influenced the content of the BMP or my findings.

STATEMENT OF CONFORMITY – PLANNING AND DEVELOPMENT ACT 2005



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The signatory declares that this Bushfire Management Plan meets the requirements of State Planning Policy 3.7 Bushfire 2024 and the Planning for Bushfire Guidelines 2024.

ASSESSMENT

Preface

The applicant proposes construction of a data centre (large) at 196 Bushmead Road Hazelmere (Location Plate 1).

The proposal is to establish two large-format data centres Portion 1 (north) and Portion 2 (south), that are 36 m tall and have supporting power generators (three level banks) along the east of the buildings separated by 6 m to the building and 12 m from the east boundary. A front of house office (two - three storey) is located within 3.4 m to the Bushmead Road road reserve. Otherwise the closest portion of a building to a site boundary is 6.6 m at the south west corner of the data building at Portion 2.

A future power substation is proposed at 178 Bushmead Road, Hazelmere, immediately west at a former commercial landscape supply site. No habitable buildings are proposed to be located at 178 Bushmead Road which will be a hardstand surface supporting the substation infrastructure.

Access to the site is from Bushmead Road (a local through road) from the west of the site to the gate house and parking area. A driveway provides access around the buildings and exits onto Bushmead Road at the east of the site.

The site has access to a reticulated water supply and sewage services.

The majority of the site will be occupied by the proposed buildings and hardstand areas; any existing vegetation will be displaced by the buildings and hardstand. A limited opportunity is available for low threat (bushfire) landscaping at the south west portion of the site.

The site is within a declared bushfire prone area and located within the administrative area of the City of Swan (Map of Bushfire Prone Area Plate 2). The site is zoned for Metropolitan Regional Scheme Industry and City of Swan local Planning Scheme 17 Special uses Zone (#25) for light industry; restricted external impacts but there is no restriction on building bulk or scale.

The proposed data centre is required to be assessed for its compliance with the siting requirements in State Planning Policy 3.7 *Bushfire 2024* ('**SPP 3.7**') and the bushfire protection criteria described in the Planning for Bushfire Guidelines 2024, but only if determined to be outside of a reticulated water supply, and if the building position exceeds 29kWm² (BAL 29); a Bushfire Attack Level (BAL) Assessment is required to determine the BAL and in this instance measures are required to achieve BAL 29 at the building.

The proposed building is a class 5, 7 and 8b building. It is not a class of building (class 1-3 and 9) subject to the bushfire construction standard (*Construction in Bushfire Prone Areas*) described at Part G5 Volume 2 National Construction Code 2019 (and unchanged in NCC 2022).

1. Site details

The site is flat, and vacant. It was formerly used for rural living with a house demolished in 2022. It had been used for grazing and horse agistment and has been mostly cleared (now grassland) with the exception of introduced Eucalypts, primarily as windrows, and isolated trees retained around the site and near to two separate natural depressions.

The Bushmead Road reserve is 8 m wide and planted with eucalypts. Whilst it is less than 10m wide and can be classed as a single row of trees (excluded as a bushfire threat) it is proposed that this area, through understory management, will be maintained as low threat, by the proponent in accordance with the City of Swan *Verge Guidelines for residential, commercial and industrial streetscapes*.

The proposed substation site 178 Bushmead Road was previously a landscape supply site but has been cleared.

The site is within an establishing commercial industrial area characterised by large format buildings within hardstand areas and little retained vegetation. The site adjoins Special Use Zone (light industrial) at its south boundary, partially developed, and rural living (grassland) to the west of the site. The land is underutilised and is expected over time to be developed, removing the potential bushfire hazard.

2. Environmental considerations

The site is not affected by any items listed in the Landgate SLIP, ecological data base for review as listed in the Department of Planning Lands and Heritage template (*Bushfire Management Plan – Development Application*).

The proposal will displace the existing vegetation within the site. It is also proposed to manage the Bushmead Road reserve (verge) in a low threat condition.

The south west of the site provides an opportunity for low threat (bushfire) vegetation.

There is no requirement to modify vegetation that is external to the site, other than the Bushmead Road reserve, as enabled by the City verge Guidelines and undertaken nearby at other commercial sites.

3. Bushfire assessment results

A Bushfire Attack Level assessment following Method 1 AS 3959:2018, and the DPLH *Visual guide for bushfire risk assessment in Western Australia*, and using an FFDI of 80, has been undertaken.

The assessment of vegetation within 150 m of the site is illustrated in Figure 3, and Figure 4 illustrates the bushfire attack level radiant heat (BAL contour) at the completion of the development. Figure 4 illustrates that the proposed buildings, with management of the Bushmead Road reserve (verge), will not exceed 29 kWm² (BAL 29).

4. Identification of bushfire hazard issues

The proposal does not include any routine hotworks or potential external sources of ignition or site conditions that may promote the ignition or spread of fire from the site. The proposed development does not increase the threat of bushfire within its immediate community.

The site is adjoined by lots awaiting the development potential for commercial purpose with grassland remaining at the west and partially south of the site. Providing the potential for fire to spread to the site from these directions. The site in other directions faces low threat and BAL Low.

The consequence to human harm is considered minor because there is an opportunity to evacuate the site in a direction away from the approaching fire.

The consequence of a bushfire is considered minor. It is not expected that the building operation would be disrupted beyond the immediate bushfire event.

Access to the site is expected to be available throughout a bushfire event and would not be restricted for a prolonged period after a bushfire event.

5. Assessment against the Bushfire Protection Criteria (Guidelines v.1.4)

The proposal was compared with the four Bushfire Protection Criteria for Elements.

Acceptable Solutions

Element 1-Location – The requirements for location applicable to strategic level plans and subdivisions is not applicable to the development of a site following its intended purpose for development.

Element 2 Siting and design – requires that any works needed to achieve BAL 29 will be contained to within the lot.

Figure 4 demonstrates no building, including fuel stores, are sited within areas on the site that will exceed 29 kWm² (BAL 29.) No building exceeds 19 kWm² (BAL 19). This includes the consideration for the proponent to establish and maintain the Bushmead Road reserve (verge) in a Low Threat condition, in compliance with the City Verge Guidelines.

The development site will comprise buildings and hardstand/roadways that are classed as low threat. There is opportunity to provide low threat landscaping compliant with the technical requirements for an Asset Protection Zone as described in Appendix B Table 9 in the Guidelines.

The proposal is compliant with the intent of Element 2.

Element 3 Vehicle Access – requires the site has access to a public through road to provide alternate routes (to suitable destinations) for evacuation of occupants and access for fire fighters.

The site is within the Perth urban road network providing public through roads to multiple destinations for safe evacuation, and the site will be accessible for emergency services throughout a bushfire event.

The site is accessed from Bushmead Road which is a sealed public through road that connects east and west to the Perth urban road network

Element 3 also provides technical requirements for private driveways longer than 70 m to facilitate the access of emergency vehicles.

The data buildings due to internal compartmentalisation will not be classed as a large, isolated buildings by the Building Act 2011 and are not required to provide a 6m wide perimeter vehicle accessway. A 5.2 m one way vehicle access has been provided around the west, south and east elevations of the data centre buildings Portions 1 and 2. The driveway narrows to 4 m at the south west corner of the building Portion 2.

The Guidelines 2024 enable a private driveway carriageway to be narrowed to 4 m within a 6 m traversable width. The proposed driveway at its narrowest point has a 6.6m separation between the building and site boundary. It is recommended that clarification is provide by condition that a traversable horizontal clearance is to be provided at the east of Portion 1 and around the east, south and west of Portion 2. (Portion 1 has a carpark at its east elevation and is separated from Portion 2 by a vehicle access under a covered loading bay (attached) at its south elevation

Element 4 Water – requires the availability of water for firefighting purposes (A4.1).

The site has access to a reticulated water supply and sewer network. Hydrants are located on Bushmead Road joining the site.

The proposal is compliant with Acceptable Solution A4.1 and Element 4

Additional Bushfire Management Strategies

The proposal is compliant with the Acceptable Solutions listed in *Bushfire Protection Criteria (subject to modification for a 6m horizontal clearance at the south west corner of the south building)*.

No additional bushfire management strategies are required other than acknowledging the management of the Bushmead Road reserve following the City of Swan *Verge Guidelines for residential, commercial and industrial streetscapes*

Spatial representation of the bushfire management strategies (Figure 5)

Figure *Spatial representation of the bushfire management strategies*.

6. Responsibilities for implementation and management of the bushfire measures

The Owner responsibilities identify the bushfire management measures necessary to achieve compliance with the bushfire protection criteria. These are provided at section 6 of the BMP.

The details contained within the planning application authorised by the responsible decision maker are enforceable under section 214 of the *Planning and Development Act 2005*, including its consistency with the *Bushfire Protection Criteria*.

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Attachment 1 –Standard for Asset Protection Zones

Attachment 2 – Technical Requirements for Private Driveways

Attachment 3 -Verge Guidelines for residential, commercial and industrial streetscape

1. PROPOSAL DETAILS

1.1 Introduction

Envision Bushfire Protection has been commissioned to prepare a Bushfire Management Plan for construction of a data centre at 196 Bushmead Road Hazelmere shown (Plate 1).

Purpose of this Plan

The purpose of this BMP is to assess the suitability of the location for the intended use warehouse. The site plan and building elevations are shown at Plate 3.

This document presents an assessment of a 'development application' with the requirements of State Planning Policy 3.7 Bushfire 2024 and *Planning for Bushfire Guidelines 2024*).

Site and Proposal Description

Address	196 Bushmead Road Hazelmere			
Local Government Area	City of Swan			
Local Planning Scheme Zone	Metropolitan Regional Scheme - Industrial City of Swan Local Planning Scheme - Special Use Zone #25			
Bushfire Season	1 December – 12 May (precise dates may vary annually)			
Development proposal	Data centre and future substation			
Building class	Class 5, 7 and 8b			
Lot size	3.9 ha - Data centres 1.0 ha - Proposed Substation			
Land description site	The Data centre site is flat with windrows and retained isolated trees over grassland. The site has two depressions around which the trees have been retained. The site has historically been used for rural living grazing and agistment. A house and outbuilding located at the north east corner of the site were demolished in 2022. An old stable is present at the midpoint and west side of the site. The proposed substation site was a commercial land and garden supply premise, mostly hardstand with isolated trees.			
Adjoining Land uses	North	East	South	West
Within 150 m	Low threat urban/commercial	Low threat urban/commercial	Low threat urban/commercial	Rural Living, grassland (isolated trees)
Road Access	The site is accessed from Bushmead Road east west through road			

Water supply	The site has access to a reticulated water supply. Fire hydrants are located along Bushmead Road. The site is fire engineered with a pumphouse and tankage (<i>Building Act 2011</i> structural fire requirements)
Tele communications	The site is within the Telstra 4G network
Emergency services	The nearest fire brigade is the Midland Fire Station 158 Morrison Rd, Midland (5.2 km)
Minor Development	N/A
Unavoidable development	N/A
Vulnerable Development	N/A

Location

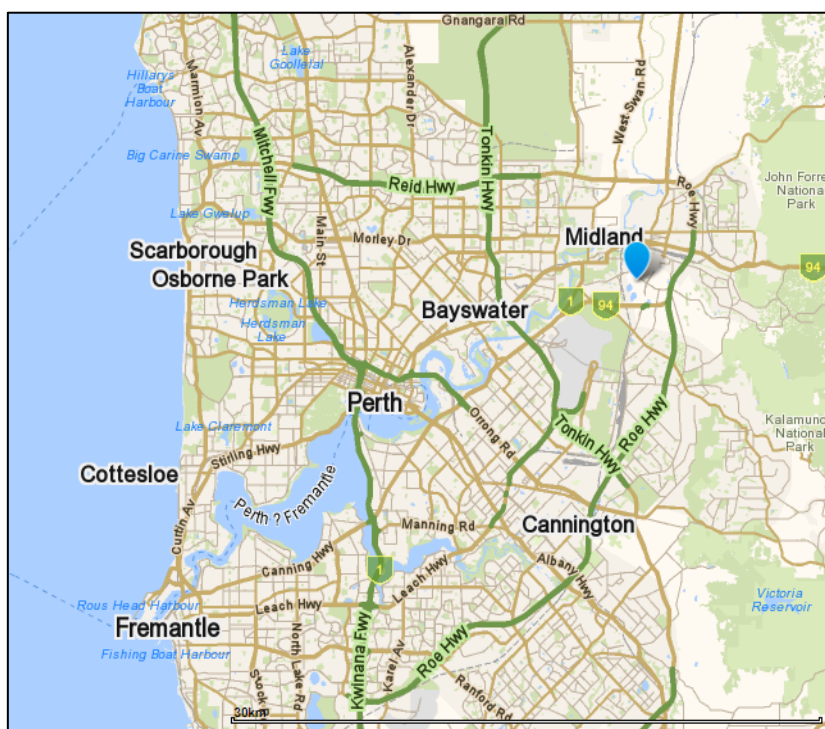


Plate 1: Site location (blue marker is the site location)

Bushfire Prone Area

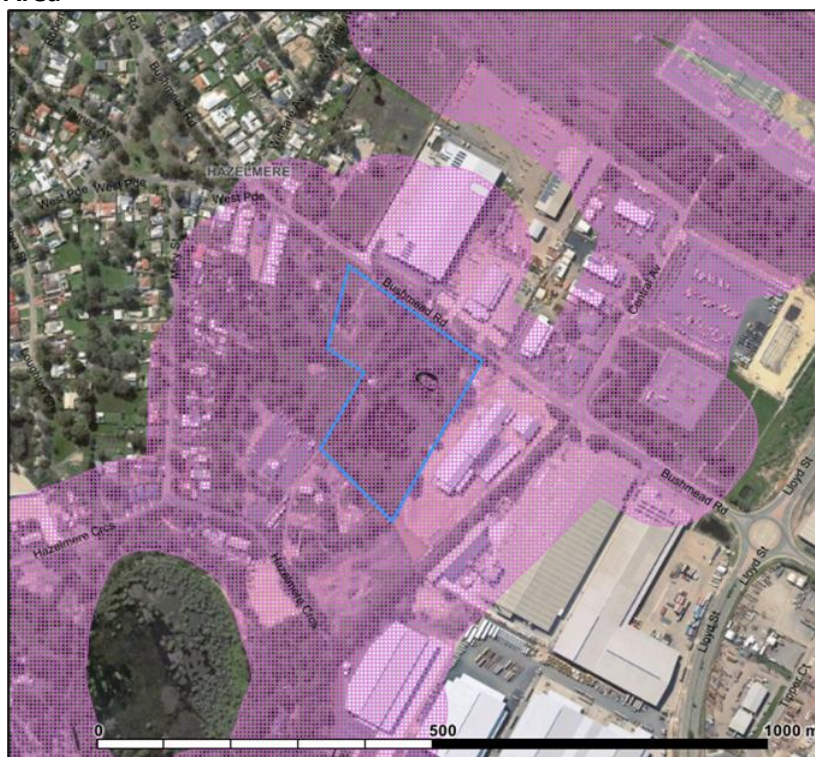


Plate 2a: Designated bushfire Prone Area - Pink shade (OBRM 2021)

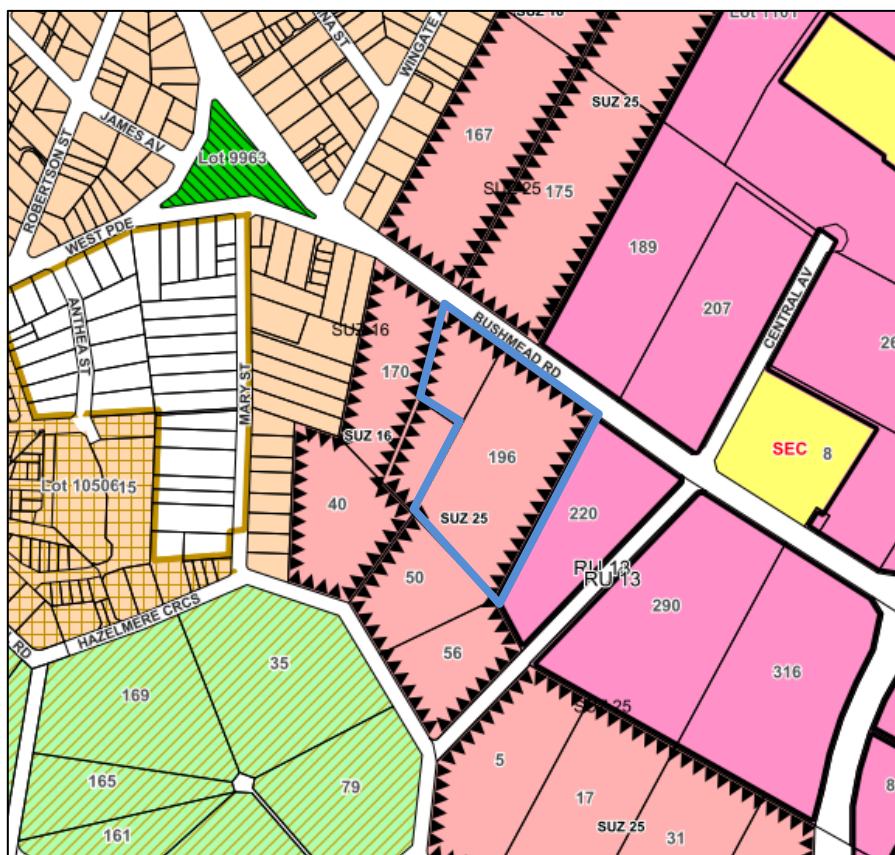


Plate 2b: land use zone (MRS Industrial, LPS (Swan) Special Uses)



Plate 3a : Artist perspective



Plate 3b: site Plan

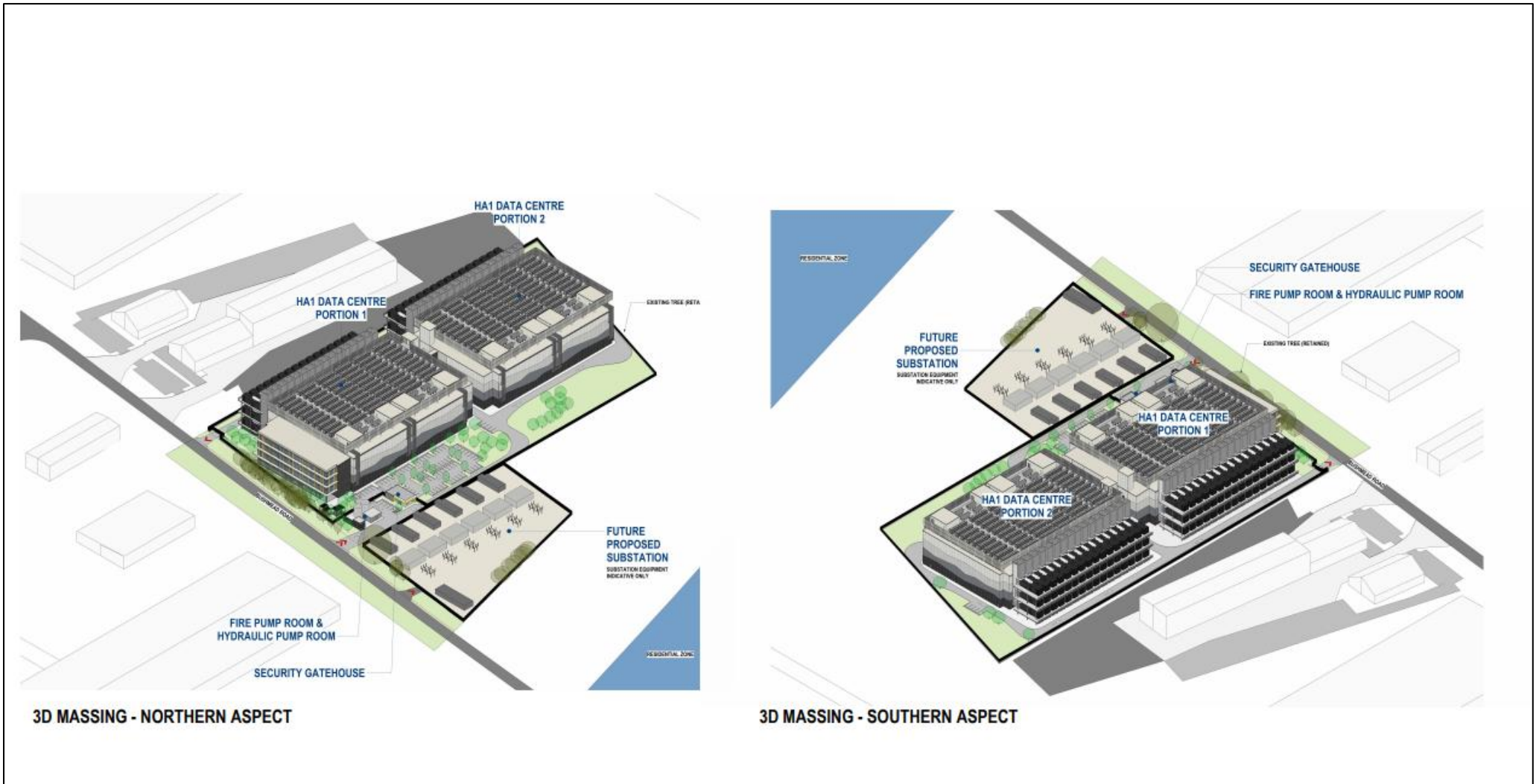


Plate 3c: Elevation perspectives

1.2 Regulatory Compliance Requirements

Planning and Development Act 2005

On 7 December 2015, the State Government first introduced by Gazette, a state map of Bushfire Prone Areas by order under the Fire and Emergency Services Act 1998 and introduced development controls in Bushfire Prone Areas through the Planning and Development Act 2005. These controls were revised (operational 18 November 2024) introducing State Planning Policy 3.7 Bushfire (SPP 3.7), and the Planning for Bushfire Guidelines, and amendments under Part 10A Schedule 2 of the Planning and Development (Local Planning Scheme) Regulations 2015.

The State Bushfire Map has now been divided into Area 1, within the Perth, Peel and Bunbury metropolitan areas, with the remainder being Area 2.

State Planning Policy 3.7 Bushfire (2024).

SPP 3.7 is arranged with a **Policy Intent**, policy objectives and policy outcomes achieved through compliance with the bushfire protection criteria, assigned to a level and class of development through acceptable solutions or an outcome approach.

SPP Policy Intent

“To implement effective, **risk-based land use planning and development** which in the first instance avoids the bushfire risk, but where unavoidable, manages and/or mitigates the risk to people, property and infrastructure to an acceptable level. The preservation of life and the management of bushfire impact are paramount.”

Planning for Bushfire Guidelines (2024)

The assigned level and class of development is provided in the Planning for Bushfire Guidelines. Compliance with the Acceptable Solutions (see Bushfire Protection Criteria #7 Development – Commercial and industrial) in the relevant bushfire protection criteria, **satisfies SP3.7** and as such the acceptable level of risk.

Planning and Development (Local Planning Schemes) Regulations 2015 - Schedule 2

The Planning and Planning and Development (Local Planning Schemes) Regulations 2015 - Schedule 2 is the Deemed Provisions, that form part of the local planning scheme. It establishes the authority to require the assessment of certain types of land use and development and the planning considerations, including State Planning Policy and including a duty taking into account the possible risk of bushfire and human health and safety.

Relevant provisions include:

Clause 67 Consideration of application by local government

- (2) In considering an application for development approval (other than an application on which approval cannot be granted under subclause (1)), the local government is to have due regard to the following matters to the extent that, in the opinion of the local government, those matters are relevant to the development the subject of the application —
 - (c) any approved State planning policy
 - (q) the suitability of the land for the development taking into account the possible risk of flooding, tidal inundation, subsidence, landslip, bush fire, soil erosion, land degradation or any other risk;
 - (r) the suitability of the land for the development taking into account the possible risk to human health or safety

Part 10A — Bushfire risk management

The definition of **construction** provided in the Planning and Development (Local Planning Schemes) Regulations 2015 – Deemed Provisions Part 10 A, provides the following definition of construction:

construction of a building includes the erection, assembly or placement of a building but does not include the renovation, alteration, extension, improvement or repair of a building;

The Deemed Provisions Part 10A also provide

78B Application of Part to development

(1) This Part applies to development that is —

- (a) the construction or use, or construction and use, of a single house or ancillary dwelling on a lot or lots with a total area of 1 100 m² or more; or
- (b) the construction or use, or construction and use, of —
 - (i) a habitable building other than a single house or ancillary dwelling; or
 - (ii) a specified building.

In this instance, the Revised Proposal is for contiguous additions to the warehouse building. It is therefore not a 'construction' for which SPP 3.7 is applicable.

Where the SPP 3.7 does not apply, the Decision Maker is still to consider the relevant planning considerations (clause 67(2) (q) and (r)) can be satisfied.

The intention is the development, because it is an attachment to a fixed development position and because SPP 3.7 is not retrospective, the relevant considerations are applicable to the construction requirements prescribed in the Building Act 2011.

In order to satisfy those considerations, SPP 3.7 can still provide a benchmark for the determination of risk, but the administration requirement in SPP 3.7, including referrals, is not applicable.

Metropolitan Regional Scheme

The Metropolitan Regional Planning scheme allocates land for certain uses including 'Industrial' where manufacturing, processing, storage, warehousing and related activities is undertaken.

City of Swan Local Planning Scheme 17- Special Use Zone #25

The Special Use Zones aim to allow specific or combined uses that have unique location and development needs not suited to standard zoning categories. They also support strategically important facilities that cannot be accommodated in generic zones, whilst ensuring they remain compatible with surrounding development.

The site is identified as SUZ 25 (schedule 4), which ostensibly provides for a light industry (no external impacts), subject to sewer (connection to the network) and site wastewater management (containment).

Building Act 2011

The *Building Act 2011* applies the National Construction Code 2022. The NCC Volume 2 Part G5 does not apply the construction in bushfire prone areas to construction other than class 1, 2, 3, and 10a, buildings.

The proposed building is a class of building (Class 5, 7 and 8b) for which Part G5 Construction in bushfire prone areas does not apply.

Where external walls are exposed to a fire source within 6 m, a Fire Resistance Level (FRL) construction is required. An FRL of 60/60/60 is a common commercial construction standard and is familiar within the construction industry. In comparison, by AS 3959, the required FRL at BAL FZ is 30/30/30, Commercial construction standards for protection from structural fires routinely exceed the performance requirement for the intensity and duration of a bushfire.

Large, isolated buildings are required to be provided with a Perimeter Vehicle Access that is a minimum of 6 m wide. This can utilise space within any setbacks from classified vegetation required for bushfire and to reduce the potential for flame contact and the intensity of the radiant heat flux.

Bush Fires Act 1954

Section 33 of the *Bush Fires Act 1954* recognises the responsibility of all landowners to prevent the spread of bushfire. The City of Swan issues a Firebreak Notice annually.

The City can issue a notice upon the landowner to act as and when specified in the notice with respect to anything which is upon the land, and which in the opinion of the local government or its duly authorised officer, is or is likely to be, conducive to the outbreak of a bushfire or the spread or extension of a bushfire.

An owner who fails to comply with a notice is guilty of an offence (Penalty: \$5,000).

The local government may in addition carry out the required works of the notice and recover the costs incurred by application to a Court.

2. ENVIRONMENTAL CONSIDERATIONS

2.1 Native Vegetation – Modification and Clearing

A fundamental consideration in the assessment of development under SPP 3.7 is to avoid instances where bushfire risk management measures would conflict with or be limited by other biodiversity management measures.

Conservation class legislation

The ability to implement bushfire risk management measures may be affected by a number of conservation class vegetations: described below.

Environment Protection Act 1986 and Environmental Protection (clearing native vegetation) Regulation 2004

It is an offense to clear native vegetation without the authority of a permit or an exemption. The act of clearing native vegetation, requires a permit from either the Department of Water and Environmental Regulation (DWER) or the Department of Mines, Industry Regulation and Safety (DMIRS), unless an exemption applies.

Exemptions include:

Environment Protection Act 1986

- Clearing required by local government Section 33 *Bushfire Act 1954*.
- **Clearing in accordance with the terms of a subdivision approval.**
- Clearing in accordance with a permit under the *Bush Fires Act 1954* (prescribed burning) and clearing by a bushfire control officer.

Environmental Protection (clearing native vegetation) Regulation 2004 (exemptions do not apply in Environmentally Sensitive Areas, and clearing > than 5 ha)

<https://www.der.wa.gov.au/your-environment/environmentally-sensitive-areas>

- Clearing to the extent necessary to construct an approved building.
- Clearing that is for fire hazard reduction burning.
- Clearing to maintain an area cleared in the last ten years.

(WA) Biodiversity Conservation Act 2016 and Bio-diversity Conservation Regulations 2018

The *Biodiversity Conservation Act, 2016*, replaces the *Wildlife Conservation Act, 1950*, and the *Sandalwood Act, 1929*, it became operational with the *Bio-diversity Conservation Regulations 2018*, on 1 January 2019.

The Act provides for listing species, threatened ecological communities (TECs), key threatening processes, and critical habitats. It introduces criteria for listing species 'endangered', 'critically endangered' or 'vulnerable,' to align with the Environment Conservation and Biodiversity Conservation Act 1999 (Cth).

The *Biodiversity Conservation Act 2016* recognises that activities approved under the *Environment Protection Act 1986* do not require further approval include clearing of native vegetation that is either exempt or done under the authority of a clearing permit or done in accordance with an implementation decision under Part IV of the *Environment Protection Act 1986*.

Commonwealth Environment Protection Biodiversity Conservation Act 1999

The Commonwealth Environment Protection Biodiversity Conservation Act 1999 provides for the protection of matters of national environmental significance. National environment law does not generally regulate fire prevention measures taken by state and territory governments, but no specific exemptions are provided.

In accordance with the Department of Planning Lands and Heritage template (*Bushfire Management Plan – Development Application*) a review of the listed databases has been undertaken as part of this assessment. The purpose is to identify whether restrictions or other specific considerations may apply that would affect the possible implementation of any bushfire protection initiatives/risk treatments.

This however is not a comprehensive assessment. Not all ecological details are publicly available and many of the items are not described at a site-specific level, to confirm identification on the site. In this instance the site has been historically cleared.

This BMP therefore does not preclude the requirement or influence the considerations required to be separately taken, in gaining the required authorisations under the conservation class legislation identified above.

Table 2: Ecological database assessment (Landgate SLIP viewed 8 March 2026).

Is the land affected by:	Yes/No/NA	If yes - describe
Conservation Wetland or buffer (DBCA-019 DBCA-017)	NO	Not affected
RAMSAR Wetland (DBCA-010)	NO	Not affected
Threatened and Priority Flora (DBCA-036)	NO	Not affected within 500 m of the site
Threatened and Priority Fauna (DBCA-037)	No	Not affected within 500 m of the site
Threatened Ecological Communities (DBCA-038)	NO	Not affected within 500 m of the site
Bush Forever (COP-071)	NO	Not affected
Environmentally Sensitive Area (DWER-046)	NO	Not affected within 500 m of the site
Regionally Significant Natural Areas (DWER-070)	NO	Not affected
Conservation Covenant (DPIRD-023)	N/A	Nota affected
Does the proposal require the removal of restricted vegetation?		Yes No

Native Vegetation – Modification and Clearing

SPP 3.7 Bushfire prioritises the retention of native vegetation unless unavoidable.

Objective 5.4

Prioritise the retention of native vegetation for biodiversity conservation environmental protections and landscape amenity

Outcome 6.2

Ensure siting and design solutions:

- *avoid, or where unavoidable, minimise the clearing of native vegetation*

The site is not affected by any items listed in the Landgate SLIP, ecological data base for review as listed in the Department of Planning Lands and Heritage template (*Bushfire Management Plan – Development Application*).

In this instance, the land is being used consistently with the development expectation provided by the land use zone, and typically, commercial industrial development will displace all vegetation within the site (under building and hardstand).

2.2 Re-vegetation/Landscape Plans

The proponents' intent is to manage the Bushmead Road reserve as low threat, in accordance with the City of Swan *Verge Guidelines for residential, commercial and industrial streetscapes*.

Space at the south west of the site is proposed to be landscaped as low threat, to prevent a fire spread from the west of the site into the site. Low threat is a horizontal and vertical separation of bushfire fuels that restrict the spread of bushfire. It enables trees to be retained or propagated with appropriate separations. Low threat includes not exceeding 15% canopy cover, and no trunk within 6 m of a building (in this case an adequate separation between the building and any landscape vegetation will be provided by the private driveway (west elevation). The separation between vegetation types can be provided by low flammability and high moisture vegetation types, as an alternative to non-combustible surfaces.

3. BUSHFIRE ASSESSMENT

3.1 Bushfire Attack Level Assessment (Inputs)

The following assessment has applied the methodologies described in AS 3959:2018, the Guidelines, and has used the Fire Protection Association Australia accredited practitioner methodology for the preparation of Bushfire Attack Level (BAL) assessments.

All vegetation within 150 m (context) of the subject building has been classified following Clause 2.2.3 (AS 3959:2018) to determine the predominant vegetation affecting the behaviour at the locality. The Bushfire Attack Level is determined by the **predominant** vegetation within 100 m of the site boundary (for subdivision), or around the development site (building envelope) or the external face from a habitable building.

The classifications of vegetation used in AS 3959:2018 are based on foliage cover, measured as a percentage of a hectare and by the fuel (vegetation) height.

Foliage cover: The portion of the ground that would be shaded by foliage when the sun is shining directly overhead, expressed as a percentage for each stratum or identifiable layer of vegetation

AS 3959:2018

Layer/ Stratum	Description	Hazard
Bark	Tight/fine – course/ribbon	Spotting and ember attack potential associated with forest
Canopy	Trees taller than 6 m (forest)	Influences the flame height
Elevated fuel	Trees and Shrubs up to 6 m	Influences the flame height
Near surface	Grasses and shrubs taller than 100 mm and up to 2 m	Influences the rate of spread and canopy ignition
Surface	On ground material, leaves, twigs, bark	Influences the rate of spread

From CFA (Vic) Overall fuel assessment guide 2010

AS 3959:2018 prescribes six categories of Bushfire Attack Level (BAL): BAL-LOW, BAL-12.5, BAL-19, BAL-29, BAL-40, and BAL-FZ. In addition, BAL-FZ describes only performance solutions where the separation from classified vegetation (on completion) is less than 10 m. The BAL level is used for determining the siting of development (to be less than BAL-40) and in turn the construction standard that is equivalent to the BAL at the proposed building location.

This assessment has followed the guidance of AS 3959:2018. This includes:

- A recognition of excluded vegetation types described at cl.2.2.3.2 (e) and (f), but the underlying vegetation should still be classed e.g., an orchard may be excluded but not the grassland within it.
- A separate plot is applied if there is a variation in the slope greater than 5.0°
- For various vegetation classes a representation that is less than 10%, does not constitute the predominant class. Foliage cover referred to in AS 3959:2018 for various classes is based on the foliage cover for that class as a percentage of a ha. (shadow cast is not representative of foliage cover).
- The measurement point and the most influential vegetation class (presenting the highest BAL at the building) is used for the determination of the BAL at the building (Figure 2.2 AS 3959:2018).

- Consideration of the predominant vegetation is to consider the likelihood of regeneration.
- Orchards, and single tree rows (planted in a row less than 10 m wide) is determined by underlying the near surface fuel.

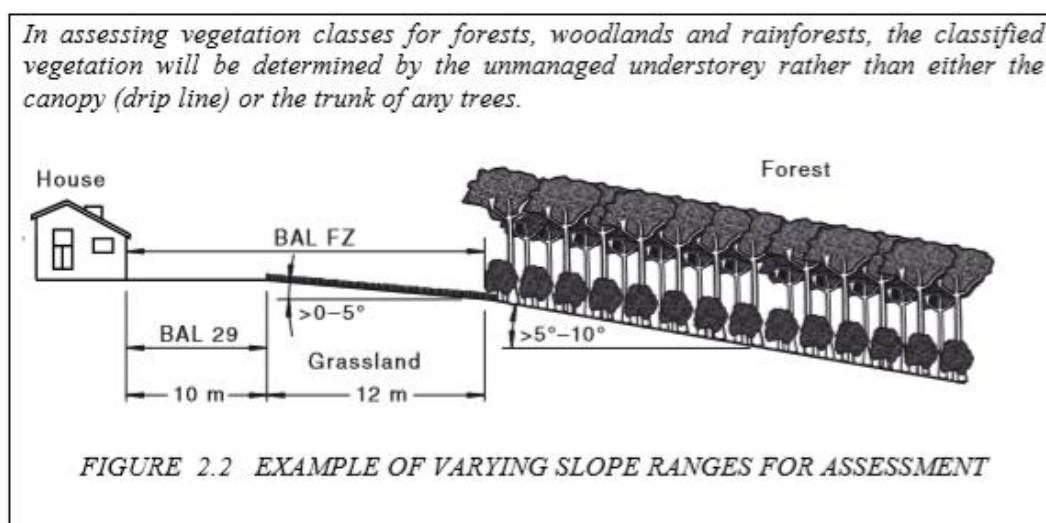


Plate 4: Effective Slope and measurement taken from AS 3959:2018

Effective slope under each vegetation plot was assessed in accordance with the methodology detailed in AS 3959:2018 Construction of buildings in bushfire prone areas (AS 3959) (Standards Australia, 2018 Bushfire Fuels). Slope data was measured on site and cross referenced with Landgate elevation data.

Site Assessment and Site Plans

The assessment of this site / development was undertaken on 28 January 2026 by a BPAD Accredited Practitioner for the purpose of determining the Bushfire Attack Level in accordance with AS 3959: 2018 Simplified Procedure (Method 1).

The following figures illustrate the findings of the assessment and georeferenced photos are provided. The vegetation is assessed by both the aerial photo to determine the horizontal distributions and the oblique photo as evidenced of the vertical fuel structure.

Figure 1 is provided for the area context.

Figure 2 illustrates the topography

Figure 3a illustrates the vegetation plots and the photo evidence positions.

Figure 3b illustrates the post development vegetation and distance to the nearest classified vegetation.

Figure 4 illustrates the post development BAL contour.

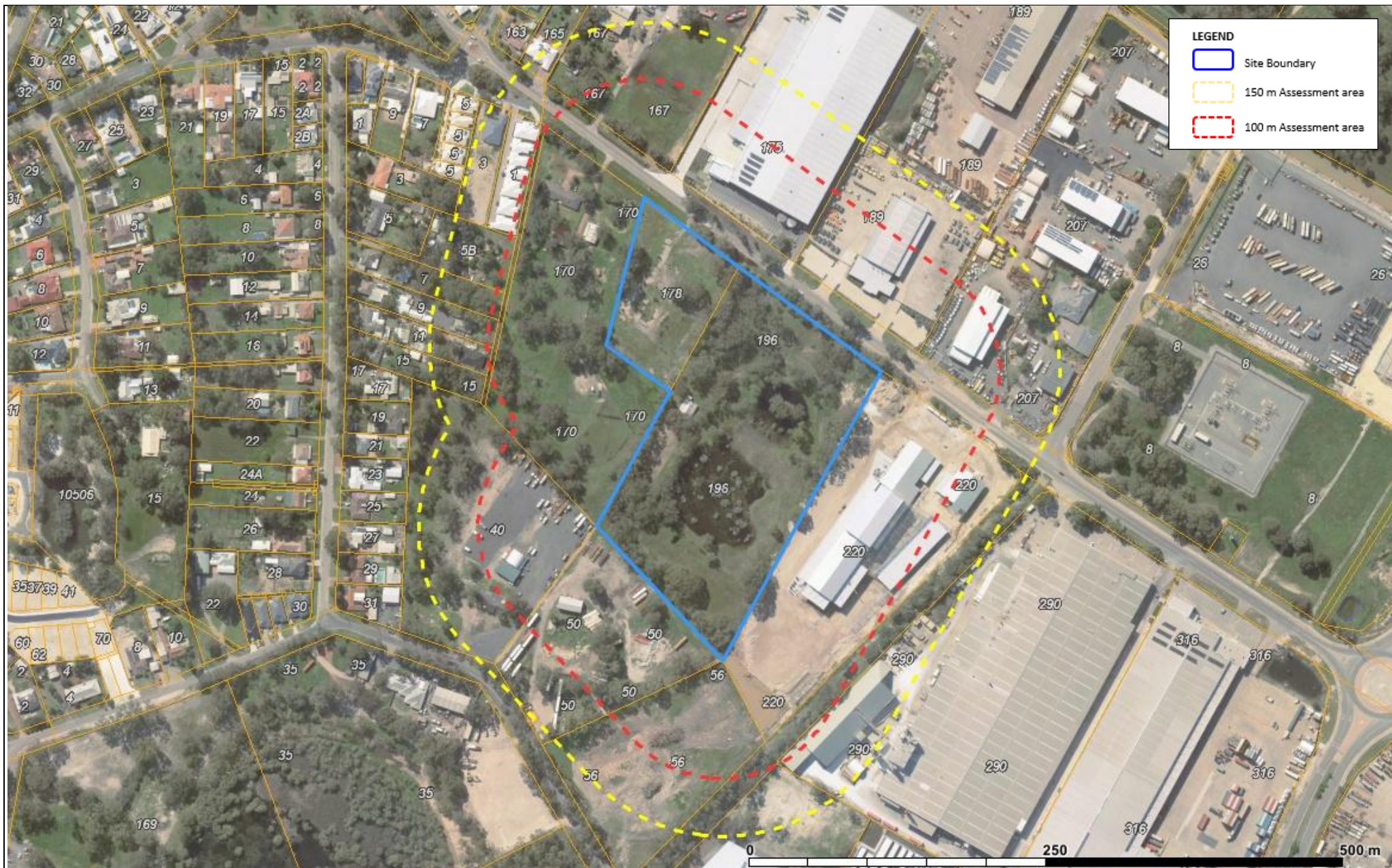


Figure 1: Location



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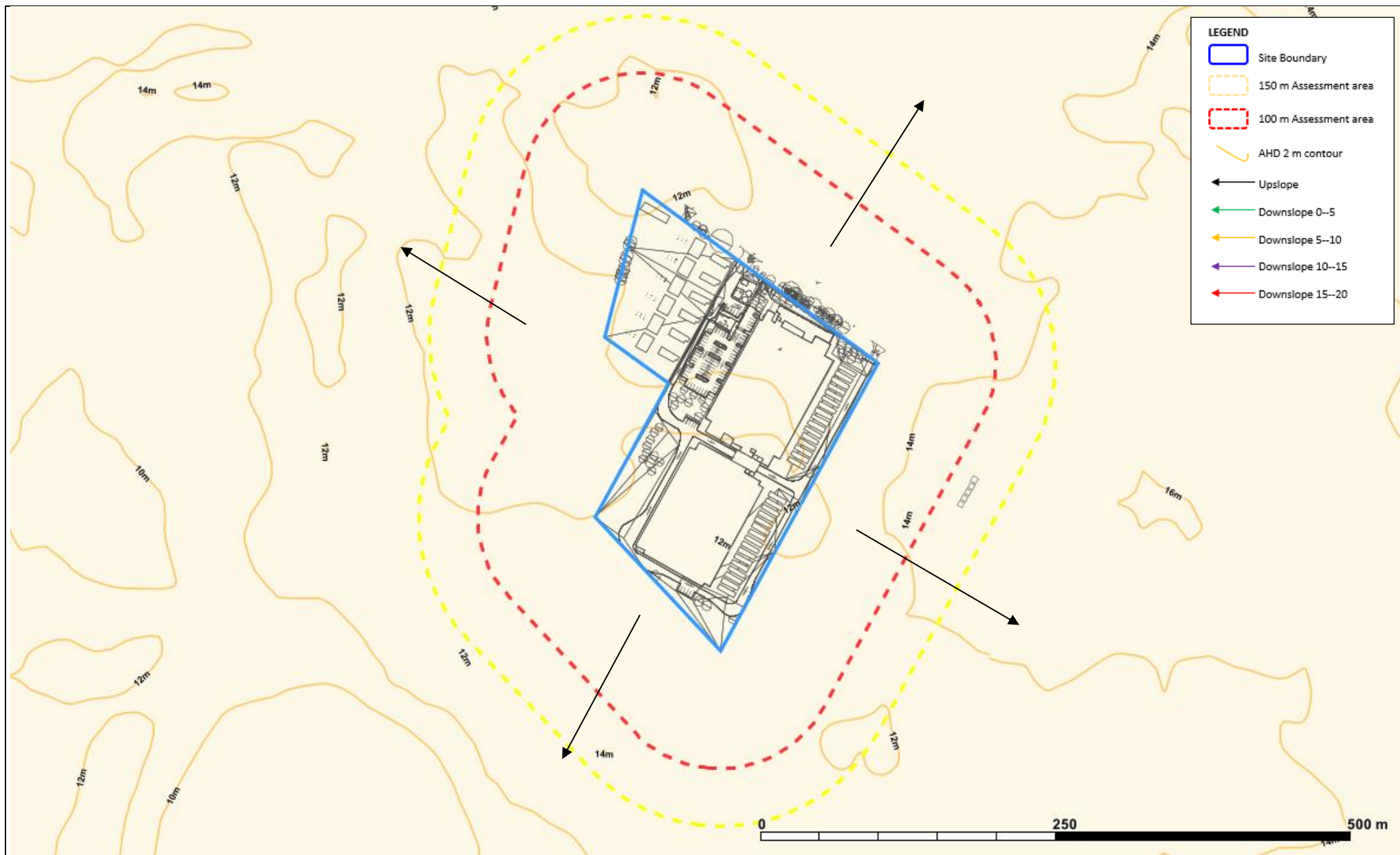


Figure 2: Topography



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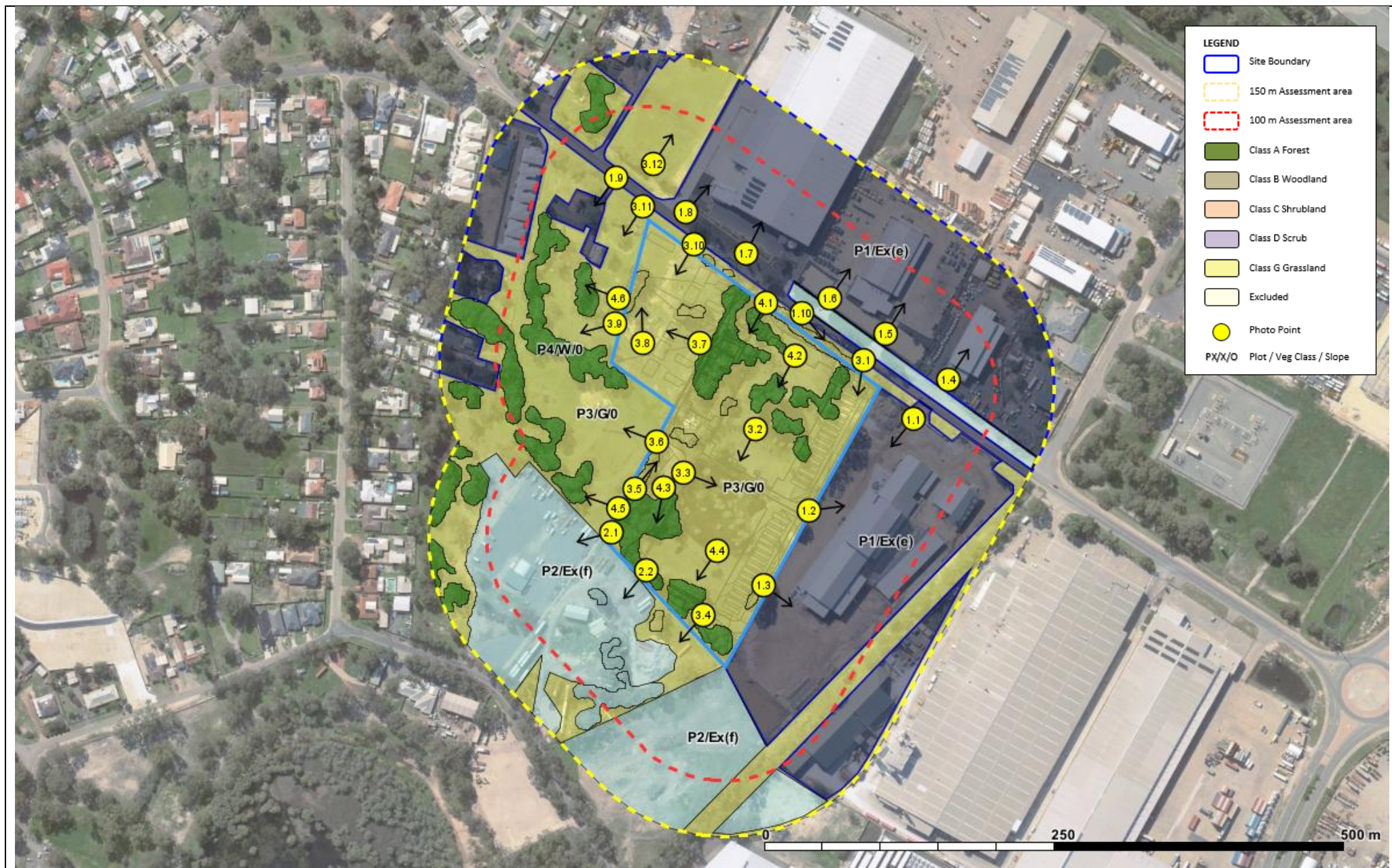


Figure 3a: Vegetation Classification and photo locations



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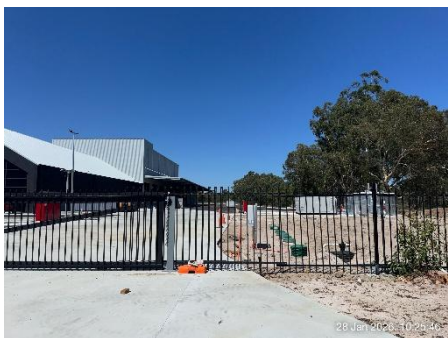
**Figure 3b: Vegetation Classification
Post development**



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PLOT:1				
Vegetation Classification			Slope	
Excludable - 2.2.3.2(e) Non Vegetated Areas			Flat	
Observation/Justification for classification				
Fuel Hazard	Surface	Near surface	Elevated	Bark
Low	✓	✓	✓	✓
Moderate				
High				
Very High				
Extreme				
Vegetation Description (AS 3959)				
(e) Non-vegetated areas, that is, areas permanently cleared of vegetation, including waterways, exposed beaches, roads, footpaths, buildings and rocky outcrops.				
Post development				
Low threat				
				
Photo 1.1 Development east of site		Photo 1.2 Development (central) east of site grass in foreground		
				
Photo 1.3 Development (south) east of site grass in foreground		Photo 1.4 Low threat north east of site		

PLOT:1				
Vegetation Classification		Slope		
Excludable - 2.2.3.2(e) Non Vegetated Areas		Flat		
Observation/Justification for classification				
Fuel Hazard	Surface	Near surface	Elevated	Bark
Low	✓	✓	✓	✓
Moderate				
High				
Very High				
Extreme				
Vegetation Description (AS 3959)				
(e) Non-vegetated areas, that is, areas permanently cleared of vegetation, including waterways, exposed beaches, roads, footpaths, buildings and rocky outcrops.				
Post development				
Low threat				
				
Photo 1.5 View north east of site		Photo 1.6 View north of site		
				
Photo 1.7 View north of site		Photo 1.8 View north west of site		

PLOT:1				
Vegetation Classification			Slope	
Excludable - 2.2.3.2(e) Non Vegetated Areas			Flat	
Observation/Justification for classification				
Fuel Hazard	Surface	Near surface	Elevated	Bark
Low	✓	✓	✓	✓
Moderate				
High				
Very High				
Extreme				
Vegetation Description (AS 3959)				
(e) Non-vegetated areas, that is, areas permanently cleared of vegetation, including waterways, exposed beaches, roads, footpaths, buildings and rocky outcrops.				
Post development				
Low threat				
				
Photo 1.9 House compound west of site, road reserve grass in foreground		Photo 1.10 Bushmead Road single row trees in verge		

PLOT:2				
Vegetation Classification		Slope		
Excludable - 2.2.3.2(f) Low Threat Vegetation				
Observation/Justification for classification				
Fuel Hazard	Surface	Near surface	Elevated	Bark
Low	✓	✓	✓	✓
Moderate				
High				
Very High				
Extreme				
Vegetation Description (AS 3959)				
(f) Vegetation regarded as low threat due to factors such as flammability, moisture content or fuel load. This includes grassland managed in a minimal fuel condition, mangroves and other saline wetlands, maintained lawns, golf courses (such as playing areas and fairways), maintained public reserves and parklands, vineyards, orchards, banana plantations, market gardens (and other non-curing crops) cultivated gardens, commercial nurseries, nature strips and windbreaks.				
Post development				
Low threat				
				
Photo 2.1 View to hardstand south of site		Photo 2.2 Short grass and hardstand south of site, site grass in foreground.		

PLOT:3				
Vegetation Classification			Slope	
Class G Grassland – Spare open tussock G-24			Flat	
Observation/Justification for classification				
Fuel Hazard	Surface	Near surface	Elevated	Bark
Low		✓	✓	✓
Moderate	✓			
High				
Very High				
Extreme				
Vegetation Description (AS 3959)				
All forms (except tussock moorlands) including situations with shrubs and trees if the overstorey foliage cover is less than 10%. Includes pasture and cropland.				
Post development				
Low Threat (Photo 3.4 retained external to site)				
				
Photo 3.1 View south grassland at north on site		Photo 3.2 Central grass, single row trees, less than 10%.		
				
Photo 3.3 Central depression shrubs < 10%		Photo 3.4 Grass south of site		

PLOT:3				
Vegetation Classification			Slope	
Class G Grassland – Spare open tussock G-24			Flat	
Observation/Justification for classification				
Fuel Hazard	Surface	Near surface	Elevated	Bark
Low		✓	✓	✓
Moderate	✓			
High				
Very High				
Extreme				
Vegetation Description (AS 3959)				
All forms (except tussock moorlands) including situations with shrubs and trees if the overstorey foliage cover is less than 10%. Includes pasture and cropland.				
Post development				
Low threat				
				
Photo 3.5 Windrow on west boundary<10% of the site		Photo 3.6 Grassland west of site		
				
Photo 3.7 Grassland in proposed substation site		Photo 3.8 Single row at wet boundary in proposed substation site		

PLOT:3				
Vegetation Classification			Slope	
Class G Grassland – Spare open tussock G-24			Flat	
Observation/Justification for classification				
Fuel Hazard	Surface	Near surface	Elevated	Bark
Low		✓	✓	✓
Moderate	✓			
High				
Very High				
Extreme				
Vegetation Description (AS 3959)				
All forms (except tussock moorlands) including situations with shrubs and trees if the overstorey foliage cover is less than 10%. Includes pasture and cropland.				
Post development				
Retained west of the site (Photo 3.10 Low Threat)				
				
Photo 3.9 Grassland west (central) of site		Photo 3.10 View to substation to site		
				
Photo 3.11 View west of substation site		Photo 3.12 View north west		

PLOT:4				
Vegetation Classification			Slope	
Class B Woodland - Woodland B-05			Flat	
Observation/Justification for classification				
Fuel Hazard	Surface	Near surface	Elevated	Bark
Low		✓	✓	✓
Moderate	✓			
High				
Very High				
Extreme				
Vegetation Description (AS 3959)				
Trees 10 m - 30 m high; 10% - 30% foliage cover dominated by eucalypts and/or callistris with a prominent grassy understorey. May contain isolated shrubs.				
Post development				
Low threat				
				
Photo 4.1 Woodland at site from Bushmead Road		Photo 4.2 Woodland at the northern depression		
				
Photo 4.3 Central woodland		Photo 4.4 Woodland at south boundary of the site		

PLOT:4				
Vegetation Classification			Slope	
Class B Woodland - Woodland B-05			Flat	
Observation/Justification for classification				
Fuel Hazard	Surface	Near surface	Elevated	Bark
Low		✓	✓	✓
Moderate	✓			
High				
Very High				
Extreme				
Vegetation Description (AS 3959)				
Trees 10 m - 30 m high; 10% - 30% foliage cover dominated by eucalypts and/or callistris with a prominent grassy understorey. May contain isolated shrubs.				
Post development				
Retained as Woodland, external to the site.				
				
Photo 4.5 Woodland west (south) of site		Photo 4.6 Woodland west (north) of site		

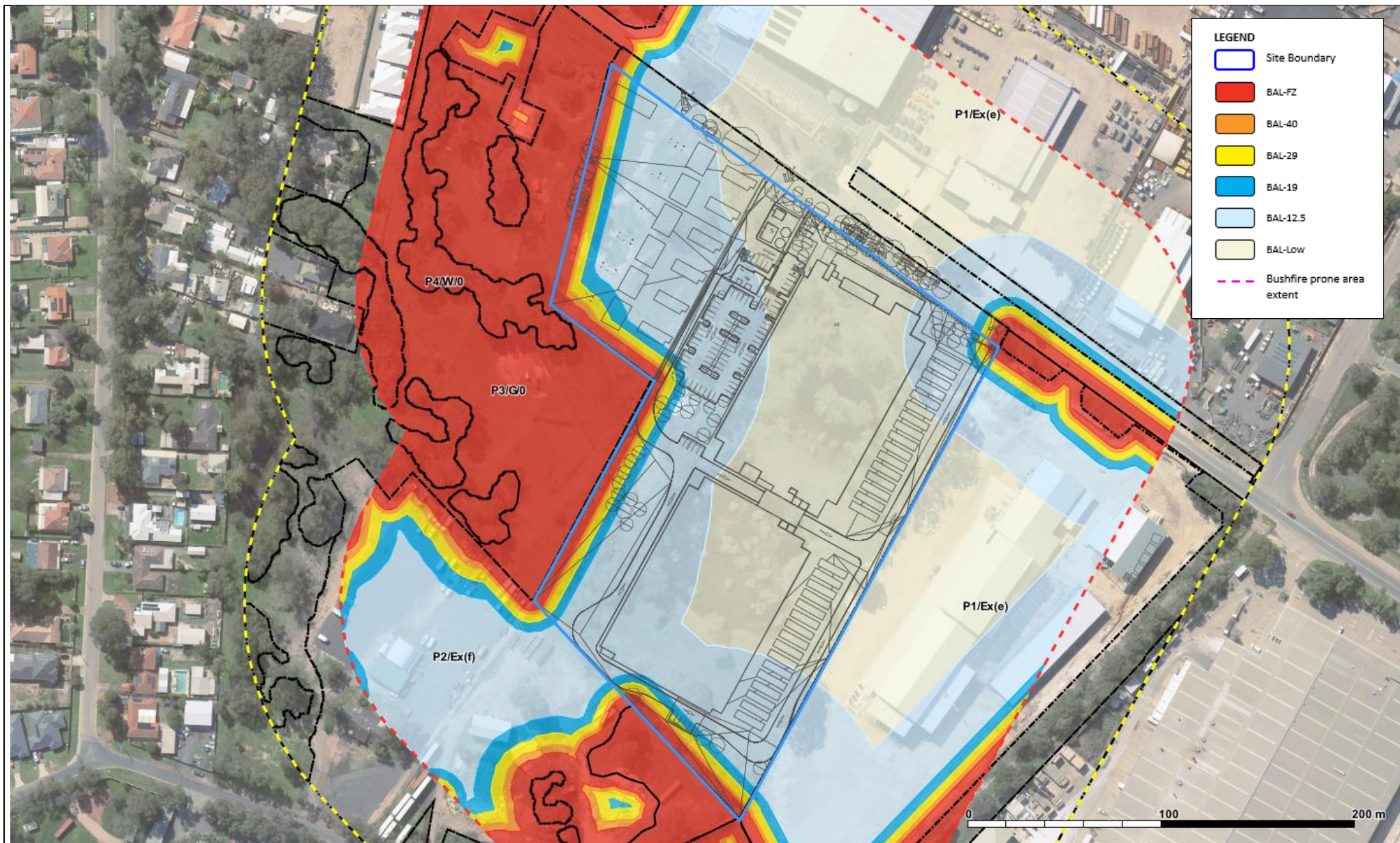


Figure 4: BAL Contour



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3.2 Assessment Outputs

The Indicative BAL is the expected BAL at completions. In this instance the whole site will be low threat at completion, the resulting BAL level is derived from the presence of classified vegetation upon adjoining land that is assumed to remain external to the site.

Table: 2.1a Data centre Portion 1

Plot no.	Vegetation Classification	Effective slope	Separation m	BAL	Required for BAL 29
2	Grassland	Level/Upslope	39 m	BAL – 12.5	8 m
3	Woodland	Level/Upslope	84 m	BAL – 12.5	14 m

Table: 2.1b Data centre Portion 2

Plot no.	Vegetation Classification	Effective slope	Separation m	BAL	Required for BAL 29
3	Grassland	Level/Upslope	16 m	BAL - 19	8 m
4	Woodland	Level/Upslope	66 m	BAL – 12.5	14 m

4. IDENTIFICATION OF BUSHFIRE HAZARD ISSUES

This Bushfire Management Plan (BMP) has been prepared in accordance with *State Planning Policy 3.7 – Planning in Bushfire Prone Areas* (SPP 3.7), which aims to mitigate bushfire risk to people, property, and infrastructure to an acceptable level. The policy framework recognises that while some level of bushfire risk will always remain, the focus is on identifying, assessing, and mitigating that risk to an acceptable level—rather than eliminating it entirely.

Importantly, SPP 3.7 is not intended to be applied inflexibly but allows for context-sensitive application based on site-specific assessments. Risk under SPP 3.7 is defined and assessed using AS 3959:2018 – Construction of buildings in bushfire-prone areas, which considers vegetation type, slope, site access, and the availability of water for emergency response.

AS 3959 primarily focuses on assessing radiant heat exposure to determine construction requirements. However, this approach does not differentiate between various bushfire behaviours and attack types, nor does it account for broader life safety considerations—such as the availability of safe evacuation routes, access for emergency services, or the adequacy of fire suppression resources, including water supply and firefighting infrastructure.

The Bushfire Protection Criteria (BPC) sets out the minimum acceptable solutions for managing bushfire risk, including requirements for access, water supply, siting, and vegetation management for new developments. It does not directly address building construction risk, other than requiring siting to achieve BAL-29. This results in construction needing to comply with BAL-29 at the building permit stage, unless an alternative Outcome-based solution provides an equivalent level of risk treatment.

This BMP also aligns with the National Emergency Risk Assessment Guidelines (NERAG) 2020, and its Land Use Planning for Disaster Resilient Communities (2020) which operationalise the AS/NZS ISO 31000:2018 Risk Management – Principles and Guidelines and incorporates categorised treatment options from the National Fire Protection Association (NFPA) model, which is also recognised by the Australian Building Codes Board (ABCB). This integrated methodology provides a robust and transparent framework for identifying, evaluating, and treating bushfire risk in accordance with national and international best practice.

NERAG	Scale response
Scope and Objective	SPP 3.7 Policy Intent
Risk identification	Bushfire
Risk Analysis	Bushfire Behaviour (contributing attributes) Climate (local) Existing mitigations (controls) relied upon
Risk Evaluation	Cumulative risk: Likelihood (risk of ignition): Inherit fuels, history, external activities. Consequence: Social (human harm - minimising exposure evacuate or shelter) Economic (Asset threat – managing the fire, sources and building resistance)

Risk Treatments	Bushfire Protection Criteria (Additional) As Low as reasonably practical measures (ALARP) addressing: – Minimising Ignition – Minimising exposure – Managing (reducing) the fire effects¹.
Communication	Bushfire Management Plan

The risk treatments aligning the Policy Intent with the NFPA 550 (2012)² and its risk treatment methods are illustrated in the following table.

SPP 3.7	NFPA	Impact Mitigation
	Prevent Ignition	Nullify potential externalities
Preserving life	Manage the exposed	Evacuation
		Shelter
Property and assets	Manage the fire	Vegetation management (APZ)
		Building construction
		Fire suppression

¹

² Guide to the fire safety concepts tree. Quincy: National Fire Protection Association, 2012.

2.3 Scope and objective

The intent of this policy is:

To implement effective, risk-based land use planning and development which in the first instance avoids the bushfire risk, but where unavoidable, manages and/or mitigates the risk to people, property and infrastructure to an **acceptable level**. The preservation of life and the management of bushfire impact are paramount.

2.4 Risk Identification

Bushfire attack risks include

Consequence	Social/ Life	Economic/ Asset
Catastrophic	Fatality.	Extensive loss, extended closure until facility is rebuilt.
Major	Major or Multiple injuries resulting in temporary disability or ill health, Extended lost time for recovery.	Partial loss, partial closure until isolated items are rebuilt.
Moderate	Injury or illness requiring medical or psychological treatment, lost injury time.	Disruption only for evaluation, repairs required to a primary building but not closure.
Minor	Minor injury, first aid treatment required. No lasting impact.	Disruption only for evaluation, damage to incidental structures.
Insignificant	No treatment.	No Disruption

Notes:

fatal and property destroying includes: flame immersion, accumulated embers, and radiant heat. 4-7 kWm² (human) 10 kWm² (maximum for vehicles), and toxic smoke and carbon monoxide asphyxiation (fatal humans).

harmful convective heat, strong winds (blown object injuries), particle injuries (embers small burns and eye injury) heavy smoke (obscured vision, trips, falls, collision, and respiratory sensitivity impacts (increases with smoke thickness), and mental trauma (bushfires are terrifying).

fire actions: these include

- ***Airborne embers*** (concentrations diminish with distance from the fire front, but can be up to 500 m from a forest)
- ***Burning debris*** and/or accumulated embers adjacent to building elements (concentrations diminish with distance from the fire front but high concentration within 100 m of forest)
- ***Heat transfer*** from combustible materials within the site (ignited structures)
- ***Radiant heat*** from a bushfire front (outside of direct flame contact)
- ***Flame contact*** from a bushfire front, includes extreme radiant heat, burning embers and cyclonic winds.

Bushfire Behaviour

Sustainable fire combustion depends upon the availability of fuel, oxygen, and heat. Removal of any one of the three aspects will extinguish or not sustain a fire. Fuel management, the management of vegetation, is the most practical means of control.

Bushfire behaviour, as it increases in intensity and speed of travel, can exceed human control measures and when this occurs the risk increases to humans and property. Bushfire behaviour is a result of climate, topography, and the availability of bushfire fuel (vegetation).

- Climate (drought and season) & weather (temperature, humidity, wind, atmospheric instability).

Wind

Bushfires are influenced by the wind direction and the speed. The wind direction generally determines the direction of the fire and wind speed, along with ground slope, generally determines the speed a fire will travel over ground. As wind strength increases it increases the availability of oxygen allowing the fire intensity to increase.

Atmospheric conditions determine the potential for the uplift of embers and particles that can be distributed by the prevailing wind direction well ahead of the fire, up to 9 km, to create spot fires that can advance the location of the fire front.

Fire Danger Index FDI

FDI is an indicator of potential fire intensity and behaviour based upon weather conditions; temperature, humidity, and wind speed, together with climate measures, drought factor representing the dryness of the ground fuels.

- Topography (slope of the ground, aspect) – fire travels faster uphill, and in some conditions may determine the direction of the fire. The landform can also channel and increase the windspeed at a locality and create turbulence. It is measured as 0.0° or in downslope increments of 5.0°.
- Vegetation (horizontal and vertical structure, flammability, mass, and availability). Measured as a vegetation classification, or an exclusion, in AS 3959 (Method 1). The arrangement of fuel has a greater effect upon the intensity of a fire than just its mass; its exposure to oxygen is referred to as its availability in a bushfire.

Grass fires are fast moving and influenced by the wind direction. Forest Fires are characterised by the high fuel mass and have the highest fire line intensity requiring the largest separations to reduce radiant heat. Forest fires, if of sufficient size, continuity, and intensity can eject embers up to 5 km in advance of the fire front (and greater distances but rare). Ember attack is the cause of the highest building loss, either finding gaps and flammable materials within a building or igniting flammable materials near a building that can expose a building to direct flame contact.

Climate

The nearest weather station to the site is at Perth airport (6 km south west of the site). The site is within an area described as having a Mediterranean climate of dry summers and mild, wet winters. The majority of rainfall is between May and September. The prohibited burning period is from mid-December to mid-March.

The Bushfire Danger Season has traditionally been between November and April each year, but recent climatic conditions have caused fire danger conditions to be present either side of this period.

Bushfires generally travel in the direction of the prevailing wind. The direction of the prevailing wind conditions can affect the options for evacuation and anticipated fire intensity depending upon the slope and fuel.

The fire danger index in Perth rarely exceeds a FDI 50, but on those days a total fire ban may apply and sites should be prepared. This may be to be alert to a need to evacuate by monitoring warnings and also ensuring items that may be readily flammable are either enclosed or removed from near buildings.

The wind roses below (Plates 5 and 6) for February (averaged) recorded at 9 am and 3 pm. illustrate the winds are strongest and most frequent from the south-east and east in the morning. Afternoon winds are generally stronger and of a higher frequency from the west.

A fire can however come from any direction that the wind may be blowing at the time, the wind roses provide an indication that over a period, if a fire is not controlled, it may follow the prevailing wind.

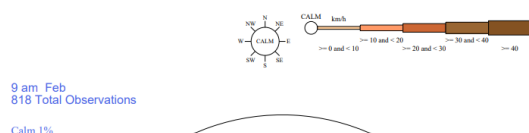


Plate 5: wind directions as at 9 am

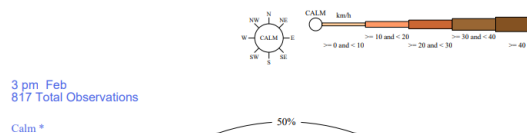


Plate 6: wind directions as at 3 pm

2.5 Risk Analysis

Scenario

The area west and partially south east of the site has grassland that may promote the spread of bushfire up to the site.

The wind roses suggest a risk through the grass to the east and south west, until the adjoining land is developed and the grassland removed.

The site is 4 km west of the Darling Scarp, forest and extreme bushfire behaviour. A forest has potential to spread embers up to 5 km from the fire front; this risk is not specific to the site and has the potential to affect a wide area.

2.6 Risk Evaluation

The site is large and will be developed as a low threat. The site is accessed from a through road at its north boundary, and apart from a localised fire in the road reserve, the primary threat is from the south and west, enabling evacuation from the site.

Figure 4 illustrates the buildings are not exposed to direct flame contact or a radiant heat exceeding 19 kWm^2 (south elevation Portion 2) and mostly not exceeding 12.5 kWm^2 .

Given the opportunity to evacuate the site in an opposite direction to an approaching fire, the human harm consequence is minor.

2.7 Risk treatments

Minimising Exposure (human safety)

Move people away from the approaching fire – evacuate on observation of a fire south of the site. A localised fire may not be publicly announced; action should be taken upon observation of a fire, in addition to any direct/public instruction to evacuate.

Asset Protection

There is no mandatory construction standard however, the routine commercial construction would exceed the performance requirement to resist structural damage in in event of a fire approaching either from the west or south east.

Flammable materials (e.g., waste bins, stored items) should either be removed from the vicinity of buildings or enclosed upon notification of a bushfire threat.

5. BUSHFIRE PROTECTION MEASURES

Planning for Bushfire Guidelines (2024) (the Guidelines)

The Bushfire Protection Criteria in the Guidelines is divided into 8 classifications, each with four elements – location, siting and design, vehicular access, water. Each element aligns to an Outcome listed in SPP 3.7.

The applicable classification is Bushfire Protection Criteria 7: Development - Commercial and industrial

Each element is provided with an Acceptable Solution that satisfies the SPP3.7 outcome. Compliance with all applicable Acceptable Solution is a demonstration of compliance with SPP 3.7.

Where an Acceptable Solution is not achieved an alternative bushfire risk management measure of no lesser a standard than the Acceptable Solution may satisfy the outcome of the policy.

Table 2: Bushfire Protection Criteria assessment.

Bushfire Protection Criteria 7: Development - Commercial and industrial

Demonstrated Compliance (DC)	AS	Acceptable solution achieved	OB	Outcomes-based approach required	N/A	Not Applicable
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Bushfire Protection Criteria	ACCEPTABLE SOLUTIONS	DC	Proposed Bushfire Management Strategies
Element 1: location	Area 1 Not applicable Area 2: Not Applicable	N/A	Element 1 is only applicable to strategic plans and subdivision. It is not applicable to a development following the expectation of the Zone.
Element 2: Siting and Design O2 - Ensure siting and design solutions: - manage or mitigate the bushfire risk to people, property and infrastructure; and - avoid, or where unavoidable, minimises the clearing of native vegetation.	A2.1a Siting and design Every habitable building achieves radiant heat impact not exceeding 29 kW/m ² (BAL-29).	AS	Figure 4 illustrates that no habitable building will be located within a BAL exceeding 29 kW/m ² (BAL-29).
	A2.1b Siting in an area with a radiant heat impact exceeding 29 kW/m² (BAL-40 or BAL-FZ) The siting of a commercial or industrial habitable building, with a radiant heat impact exceeding 29 kW/m ² (BAL-40 or BAL-FZ) should only be considered where: - the lot was created prior to December 2015; and - there are demonstrated site characteristics and/or biodiversity or conservation values that prevent the achievement of a radiant heat impact not exceeding 29 kW/m² (BAL-29); and - it is demonstrated that the reduction of the building footprint or a redesign to manage or mitigate the risk, is not practical or appropriate. If the provision of an APZ in accordance with acceptable solution A2.2 cannot be achieved, then the vegetation immediately surrounding the building is to be managed as defensible space in accordance with Appendix B.2, Table 9 – APZ technical requirements.	AS	Not applicable, no building is proposed at completion to exceed BAL 29.

Bushfire Protection Criteria	ACCEPTABLE SOLUTIONS	DC	Proposed Bushfire Management Strategies
	A2.2 Asset Protection Zone (APZ) The siting of a commercial or industrial habitable building, with a radiant heat impact exceeding 29 kW/m² (BAL-40 or BAL-FZ) should only be considered where: Width – the APZ is to be measured from any external wall or supporting post or column of the building, and of sufficient size to ensure the radiant heat impact of a bushfire does not exceed 29 kW/m² (BAL-29) to any part of the building, in all circumstances. Location – the APZ is to be contained solely within the boundaries of the lot, except in instances where: - the vegetation on the adjoining lot(s) is, and will continue to be, low threat as per Clause 2.2.3.2 of AS 3959 or the requirements of Appendix B.2, Table 9 – APZ technical requirements, or an alternative standard in a gazetted local planning scheme, on an ongoing basis in perpetuity; or - the adjoining land is and will remain in perpetuity, non-vegetated. Management – the APZ is managed in accordance with the requirements of Appendix B.2, Table 9 – APZ technical requirements, or an alternative standard in a gazetted local planning scheme.	AS	The site is in low-threat condition, and buildings are setback within hardstand and driveways to achieve BAL 19, south elevation, 12.5 to the west, and BAL Low at the east boundary. The Front of House is a two storey element located at 3.4 m to the north boundary. The 8 m wide Bushmead Road reserve adjacent the north of the site has a single row of trees. Elsewhere along Bushmead Road, recent commercial development has modified understorey in the road reserve but retained trees. A single row of trees is a low threat; the management of the understorey as low threat enables the verge to be excluded as a fire threat. The proponent proposes to manage the understorey in a low threat condition in compliance with the City of Swan <i>Verge Guidelines for residential, commercial and industrial streetscape</i>. It is understood the south west area of the site that is open space will be landscaped as agreed with the City of Swan but will be provided as low threat, to avoid the threat of bushfire and intensity at the building from the west and south west of the site. This can be achieved through the vertical and horizontal separation of vegetation following AS3959:2018 s.2.2.3.2 (f) and Appendix B Table 9 in the Planning for Bushfire Guidelines 2024.
	A2.3 Clearing of native vegetation The development avoids, or where unavoidable, minimises the clearing of native vegetation.	AS	The site will be cleared of native vegetation and is unavoidable; it follows the intent of the landuse expectation of the zone (MRS industrial, and LPS light industrial) and is characteristic of development in the immediate area
	A2.4 Storage of hazardous, flammable and/or combustible materials Where a proposed land use will include the storage of hazardous, flammable and/or combustible materials as part of its ongoing day to day operations, the materials are to be stored in an area that: is subject to a radiant heat impact not exceeding 29 kW/m² (BAL-29);	AS	No building is subject to a radiant heat impact exceeding 29 kW/m² The storage of fuels for the generators will not exceed BAL 29.

Bushfire Protection Criteria	ACCEPTABLE SOLUTIONS	DC	Proposed Bushfire Management Strategies
	– is non-combustible and shields the materials to reduce their exposure to radiant heat from the bushfire to levels significantly lower than 29 kW/m² and prevents the entry of debris and embers; and – limits to the degree necessary and practical, the escape of sources of ignition from the stored materials into bushfire prone vegetation.		
Element 3: Vehicular Access O3 - Ensure the design and capacity of vehicular access and egress provide: • for efficient and effective evacuation to a suitable destination(s) and/or • as a contingency measure for vulnerable land uses, an on-site shelter, where demonstrated appropriate, as a last resort option.	A3.1 Private driveway There are no private driveway technical requirements (prescribed by these Guidelines) where the private driveway is within a lot serviced by reticulated water and is no greater than 70 metres in length between the most distant external part of the habitable building and the public road. In circumstances where the above conditions are not met, the private driveway is to meet all of the following requirements: – requirements in Appendix B.3 Table 10, Column 5; and – passing bays every 200 metres with a minimum length of 20 metres and a minimum additional carriageway width of 2 metres (i.e. the combined carriageway width of the passing bay and constructed private driveway to be a minimum 6 metres); and – turn-around area (Figure 30) and within 30 metres of the habitable building (Figure 38).	AS	The site will be accessed from Bushmead Road at the west of the site, to the gate house and parking at the front of house office facing Bushmead road. A one way private drive way is to be provided around the building and exits the site at Bushmead Road on the east of the site. The building, due to the internal compartmentalisation, is not classed as a large, isolated building requiring a 6 m wide Perimeter Vehicle Access around the data centre. There is however a driveway identified around the building, illustrated as one way with a 5.2 m carriage way (through a horizontal clearance > 6 m) and restricted to 4 m carriageway at the south west corner of the southern data centre building (Portion 2). The south west section has a 6.6 m separation between the southwest corner of the building (nearest portion to a site boundary). It is recommended this be conditioned to maintain a minimum horizontal clearance of 6 m at all times including (specifically) at the south west section of Portion 2.
Element 4: Water O4 - Ensure that sufficient water is available to enable people, property and infrastructure to be defended from bushfire.	A4.1 Water supply Where a reticulated water supply is existing or proposed, a hydrant connection(s) should be provided in accordance with the specifications of the relevant water supply authority. Where these specifications cannot be met, a water tank(s) should be provided in accordance with the requirements of Appendix A.4, Table 11 – Water supply dedicated for bushfire firefighting.	AS	The site has access to the urban reticulated water supply. The building will be subject to the distribution of firefighting equipment to address a structural fire in accordance with the Building Act 2011.

6. RESPONSIBILITIES FOR IMPLEMENTATION AND MANAGEMENT OF THE BUSHFIRE MEASURES

The responsibilities for implementation and management of the bushfire measures, summarises the measures identified to achieve compliance with the bushfire protection measures following SPP 3.7.

The details contained within the planning application authorised by the responsible decision maker are enforceable under section 214 of the *Planning and Development Act 2005*. The items addressed in the table responsibilities for implementation and management of the bushfire measures form part of the planning authorisation (to be provide prior to occupation and maintained thereafter) and where there is conflict supersede the detail of the planning application.

Owner – Prior to occupation

1. The establishment/maintenance of the site as low threat (AS3959:2018 s.2.2.3.2 (e) and (f) in Appendix B Table 9 (Planning for Bushfire Guidelines 2024).

This includes any proposed landscaping at the south west of the site which is to be established and maintained as low threat described at AS3959:2018 s.2.2.3.2 (f).
2. The Bushmead Road Reserve, immediate to the site, is to be established and maintained as low threat described at AS3959:2018 s.2.2.3.2 (f) and in accordance with the City of Swan *Verge Guidelines for residential, commercial and industrial streetscape*.
3. All vehicle movement areas within the site are to be constructed and line marked (where sealed) to ensure vehicle movement areas are compliant with the technical requirements for Private driveways described in Appendix B Table 10 (Planning for Bushfire Guidelines 2024). A minimum 6 m wide traversable horizontal clearance is required to be maintained around building Portion 2 at its west, south and east elevations, the minimum made carriage way width is not to be less than 4 m wide.

Advisory notes

1. The landowner acknowledges the site may be affected by a dispersed ember attack and throughout the bushfire season should ensure flammable materials are not stored where their ignition may affect the adjacent building.
2. The landowner acknowledges the site may be affected by a dispersed ember attack,
 - a. The site will be developed as low threat AS3959:2018, s.2.2.3.2(f) – paved surfaces and buildings.
 - b. All landscaping is to be provided compliant with the definition of Low Threat at AS3959:2018, s.2.2.3.2(f), or as described by the Standards for Asset Protection Zone (Guideline v1.4) as a default guide.

For the purpose of avoiding ignition and spread of fire resulting from ember attack.
3. The landowner acknowledges their duty of care to protect any visitors to the site from harm, from a bushfire affecting the property and for the safe direction of evacuation from the site.
4. The landowner is responsible for availing themselves of any promotions and information to assist owners in preparing for and responding to a bushfire event as may be made by the City or the Department Fire and Emergency Services

Acknowledgment - Proponent

The proponent acknowledges the responsibilities as listed above and the requirement to ensure that should the land transfer to a new owner, that the new owner is aware of the BMP and their ongoing responsibility.

GENERAL REFERENCES

Blanchi R., Whittaker J., Haynes K., Leonard J., Opie K., Holland M., Dreyfuss S., 2015 *Sheltering practices during bushfire*, CSIRO Land and Water Report to the Emergency Management Victoria Natural Disaster Resilience Grants Scheme.

SA Department of Environment and Natural Resources, Government of South Australia, 2012 *Overall Fuel Hazard Guide for South Australia*

Standards Australia, *Australian Standard AS 3745:2010 Planning for emergencies in facilities*

Standards Australia, *AS 3959:2018 Construction of buildings in bushfire-prone areas*, Sydney

WA Department of Planning Land and Heritage 2016, *Visual Guide for bushfire risk assessment in Western Australia*

Western Australian Planning Commission (WAPC) 2015, *State Planning Policy 3.7 Bushfire 2024*, Western Australian Planning Commission, Perth, Perth

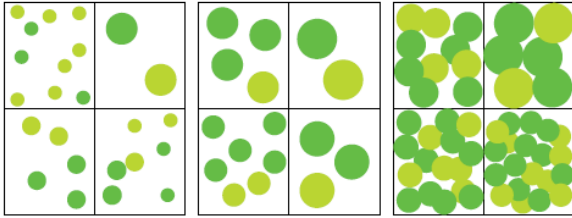
Western Australian Planning Commission (WAPC) 2024, *for Planning for Bushfire Guidelines 2024*, Western Australia

Online references

Office of Bushfire Risk Management (OBRM - 2025), Map of Bush Fire Prone Areas,
< <https://maps.slip.wa.gov.au/landgate/bushfireprone/>>December

Attachment 1 –Standard for Asset Protection Zones

Table 9: Asset Protection Zone (APZ) technical requirements

OBJECT	REQUIREMENT
Fences within the APZ	Should be constructed from non-combustible materials (for example, iron, brick, limestone, metal post and wire, or bushfire-resisting timber referenced in Appendix F of AS 3959).
Fine fuel load (combustible, dead vegetation matter less than 6 mm in thickness)	- Should be managed and removed on a regular basis to be maintained as low threat vegetation - Should be maintained at less than two tonnes per hectare (on average) - Mulches should be non-combustible such as stone, gravel, shells, rock or crushed mineral earth or wood mulch more than five millimetres in thickness.
Trees* (more than 6 m in height)	- Trunks at maturity should be a minimum distance of six metres from all elevations of the building - Branches at maturity should not touch or overhang a building or powerline - Lower branches and loose bark should be removed to a height of two metres above the ground and/or surface vegetation. - Canopy cover within the APZ should be less than 15 per cent of the total APZ area - Tree canopies at maturity should be at least 5 m apart to avoid forming a continuous canopy. Stands of existing mature trees with interlocking canopies may be treated as an individual canopy provided the total canopy cover within the APZ does not exceed 15 per cent and is not connected to the tree canopy outside the APZ. Tree canopy cover – ranging from 15 to 70 per cent at maturity  15% 30% 70%

OBJECT	REQUIREMENT
Shrub* and scrub* (0.5 m to 6 m in height). Shrub and scrub more than 6 m in height are to be treated as trees.	- Should not be located under trees or within three metres of buildings - Should not be planted in clumps more than five square metres in area - Clumps should be separated from each other and any exposed window or door by at least 10 metres.
Ground cover* (less than 0.5 m in height. Ground cover more than 0.5 m in height is to be treated as shrub)	- Can be planted under trees but must be maintained to remove dead plant material, as prescribed in 'Fine fuel load' above - Can be located within two metres of a structure but three metres from windows or doors if more than 100 mm in height.
Grass	- Grass should be maintained at a height of 100 mm or less, at all times - Wherever possible, perennial grasses should be used and well-hydrated with regular application of wetting agents and efficient irrigation.
Defendable space	Within three metres of each wall or supporting post of a habitable building; the area is kept free from vegetation but can include ground cover, grass and non-combustible mulches as prescribed above.
Liquid petroleum gas cylinders	- Should be located on the side of a building farthest from the likely direction of a bushfire or on the side of a building where surrounding classified vegetation is upslope, at least one metre from vulnerable parts of a building - The pressure relief valve should point away from the house - No flammable material within six metres from the front of the valve - Must sit on a firm, level and non-combustible base and be secured to a solid structure.

Notes:

* Plant flammability, landscaping design and maintenance should be considered – refer to following explanatory notes

Fine fuel load is the combustible, dead or dry vegetation matter on the ground, near ground, or elevated. Fine fuel includes grass, leaves, bark and twigs less than six millimetres in diameter that ignite readily and are burnt rapidly when dry.

Fine fuel should be maintained at less than 2t/ha. 100gm/m² equates to 1t/ha. To estimate a fuel load (in t/ha), collect the dry fine fuel from a representative one square meter and weigh (in grams using kitchen scales) and multiply the weight by 0.01.

Attachment 2 – Technical Requirements for Private Driveways

From Appendix B Table 10 in the for Planning for Bushfire Guidelines

Table 10: Vehicular access technical requirements

	1		2		3		4		5	
TECHNICAL REQUIREMENTS	PERIMETER ROADS		PUBLIC ROADS		EMERGENCY ACCESS WAY ³		FIRE SERVICE ACCESS ROUTE ³		BATTLE-AXE & PRIVATE DRIVEWAYS ¹	
MAP OF BUSH FIRE PRONE AREAS DESIGNATION	Area 2	Area 1	Area 2	Area 1	Area 2	Area 1	Area 2	Area 1	Area 2	Area 1
Minimum horizontal clearance (metres)	12	8	See note 5		10	6	10	6	6	
Minimum vertical clearance (metres)	4.5									
Minimum weight capacity (tonnes)	15									
Maximum grade unsealed road ²	See note 5		See note 5		1:10 (10% or 6°)					
Maximum grade sealed road ^{2,4}					1:7 (14.3% or 8°)					
Maximum average grade sealed road					1:10 (10% or 6°)					
Minimum inner radius of road curves (metres)					8.5					

Notes:

¹ Driveways and battle-axe legs to comply with the Residential Design Codes and Development Control Policy 2.2 Residential Subdivision where not required to comply with the widths in this Appendix or the Guidelines.

² Dips must have no more than a 1 in 8 (12.5% - 7.1 degrees) entry and exit angle.

³ To have crossfalls between 3 per cent and 6 per cent.

⁴ For sealed roads only the maximum grade of no more than 1 in 5 (20 per cent) (11.3 degrees) for no more than 50 metres is permissible, except for short constrictions to 3.5 metres for no more than 30 metres in length where an obstruction cannot be reasonably avoided or removed.

⁵ As outlined in the Institute of [Public Works Engineering Australasia \(IPWEA\) subdivision guidelines](#), [Liveable Neighbourhoods](#), [Austroads Standards](#) Main Roads standard, supplement, policy or guideline and/or any applicable or relevant local government standard or policy.

Attachment 3 -Verge Guidelines for residential, commercial and industrial streetscape



Verge guidelines

For residential, commercial
and industrial streetscapes



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Overview

The City of Swan (City) is the largest local authority by area and one of the fastest growing within the Perth metropolitan region, with a diverse range of existing and new residential, commercial and industrial development.

Streetscapes and verges create a strong physical image for the City and have aesthetic, social and economic value for the community. Streetscapes help to reinforce the identity of a place, provide a corridor to support biodiversity, reduce the impacts of the urban heat island effect and create an environment that supports pedestrian activity.

Waterwise verges with native plants and mulch increase water efficiency and stormwater infiltration, create a cooling effect, provide habitat for local wildlife, increase biodiversity and protect river health through reducing fertiliser runoff. Additionally, the greening of verges can be beneficial for human health and wellbeing, increase aesthetic value, save money and maintenance effort and potentially improve property prices. The City has a preference for local native species where possible and encourages residents to transform their verges to be waterwise and biodiverse.

These Verge Guidelines assist residents to improve, embellish and maintain the verge adjacent to their property. They demonstrate the City's commitment to the pursuit of Sustainable Development Goal 15, Life on Land.



What is a Verge?

The verge is the area between the edge of the road and the private property boundary. Verges are owned by the Crown (State Government) and management is vested to the City. Verges provide a buffer between the road and private property where essential services and public infrastructure may be located.

The verge width varies from property to property. The City's [online mapping tool](#) can assist residents in locating their private property boundaries.

Who's Responsible for Maintaining the Verge?

The City has management responsibility for verges, however encourages the adjacent resident to take responsibility for the embellishment, maintenance and use of the verge, to improve the environmental value and visual appeal of their property and neighbourhood.

The City of Swan undertakes planting, pruning and maintenance of trees that are located on the verge to minimise hazards, improve street presentation and ensure their long term survival. The City is also responsible for provision and maintenance of public infrastructure located within the verge such as footpaths and kerbing.

The City undertakes biannual maintenance of unmaintained verges by either slashing or mowing. The City also conducts biannual spraying of footpaths and kerb lines.

For more information on weed spraying and glyphosate use please see [Weed Control in the City of Swan](#).

Design Considerations

High level considerations prior to altering your verge include:

1. Vehicular visibility – how your verge treatment impacts vehicle sight lines, both on the road and entering/exiting properties. Plant heights and species should be carefully considered.
2. Access and movement – plants or tree limbs encroaching into footpath areas or loose material such as pebbles could spill into the public realm. Pedestrians, mail delivery or access into your property needs to be considered.
3. Services and public infrastructure – the verge is home to a number of services and public infrastructure. Be careful with tree selection to avoid contact with overhead infrastructure and ensure anything placed on the verge can be easily moved if access is needed.
4. Tree roots – when renovating your garden and verge be careful not to cut or interfere with the root systems of mature trees.
5. Dial **1100** for Dial Before You Dig or go [online](#) prior to any works commencing on site.

What is Allowed on the Verge?

The City's Local Laws allow for certain landscape treatments to be undertaken without obtaining permission from the City. These are:

1. Shrubs and ground covers
2. Grass
3. Organic mulch
4. Irrigation

For the interest and safety of the wider community, there are some conditions that need to be applied to landscaping on the verge. Please refer to the above considerations and below guidelines for information regarding setbacks and plant height restrictions.

Shrubs and Groundcovers

1. Groundcovers or shrubs shall be planted greater than 500mm away from a path, driveway, public utilities or any other structural element within the verge.
2. For verge widths less than 6.5m, groundcovers or shrubs that grow to a maximum height of 500mm at maturity may be used.
3. For verge widths greater than 6.5m but less than 8.5m, groundcovers or shrubs that grow to a maximum height of 500mm at maturity may be used within 6.5m of the kerb and up to 1.5m high at maturity for the remaining verge width, subject to not obstructing sight lines and/or creating hazards for pedestrians and motorists.
4. For verge widths greater than 8.5m, groundcovers or shrubs that grow to a maximum height of 500mm at maturity may be used within 6.5m of the kerb, then up to 1.5m high for the next 2m and up to 3m high at maturity for the remaining width, subject to not obstructing sight lines and/or creating hazards for pedestrians and motorists.
5. For verges that do not have a path, a clear zone of grass, mulch or other approved material to a minimum width of 1.2 m shall be required over the length of the verge for public access.
6. Barriers between grassed areas and other verge treatments are to consist of concrete, limestone, unit pavers or other approved materials, set flush with the adjacent ground level.
7. Local native plant species that require minimal water, fertiliser and on-going maintenance are preferred.
8. Whenever possible, planting, even with irrigation, shall be undertaken during the months May to September.
9. All plantings should be mulched to reduce water evaporation.

Grass

1. *Pennisetum clandestinum* (kikuyu) is recommended for its drought tolerance.

Organic Mulch

1. Mulch shall be placed to a minimum recommended settled depth of 75mm.
2. Suitable mulch includes pinebark, shredded green waste older than 15 months or similar. To reduce the risk of spreading Phytophthora Dieback, mulch should be sourced from reputable suppliers.
3. Peat moss should not be used in any mulch application.
4. Residents can collect up to half a cubic metre of mulch from the **Recycling Centre – Bullsbrook**. This equates to a 6 x 4 trailer load. Free mulch is subject to availability.

Irrigation

1. Dial **1100** for Dial before You Dig or go **online** prior to any works commencing on site.
2. Waterwise design principles must be incorporated into irrigation designs for planted and grassed areas.
3. Water usage shall be in accordance with Department of Water legislation, with respect to watering times and hours.
4. Where in-ground irrigation is installed to grassed areas, no part is to protrude above ground level except for pop-up sprinklers during operation.
5. The location and type of spray outlets must be selected to avoid water spray onto roads, crossovers, paths and other paved areas.
6. Irrigation controllers and valves shall be installed within the private property boundary.



Improving Your Verge

Waterwise Native Gardens

Transforming verge with waterwise native plants and mulch, whilst maintaining safety and access, can improve environmental values and increase street appeal.

Residents may wish to replace grass, weeds or a hard surface on their verge with a waterwise native plant garden.

Waterwise native verges use less water and fertiliser than traditional lawn verges, saving money and reducing fertiliser input into rivers. Converting verge lawns to waterwise gardens is estimated to save around 20,000 to 40,000 litres of water per year per lawn.

The Water Corporation's website provides useful information on [Creating a Waterwise Verge](#). For information on selecting waterwise groundcovers and shrubs, visit the [Waterwise plant search](#) on the Water Corporation's website. For information on suitable verge tree species, refer to the Street Tree section.

Local Native and Endemic Species

Australia is a large and diverse continent, with a variety of species and ecosystems present. If you are considering installing a waterwise verge, why not go the extra step and plant local native species that are specific to your soil type and area. This will increase the biodiversity and provide a food source and habitat for local wildlife. Local native species are local to the area but could be found elsewhere while endemic species are only found in that area.

Local native plants are adapted to local conditions and low nutrient soils. Use the City's soil type map available at [planting in different soil types](#) to determine your natural soil type. Refer to the relevant pamphlet to see what plants are best suited to your area, taking into consideration the height of mature shrubs and groundcovers planted on verges must comply with the criteria listed above. Additional information can be found on the [growing local plants](#) – gardening guide and tips available on the same webpage.

For information on suitable native tree species for your verge, and how to request or seek approval for verge trees, refer to the Street Tree section.

The City runs free community education programs such as [Thinking Green](#) with workshops on topics such as how to create sustainable and waterwise native gardens. Find out more about [Environmental events and workshops](#).

Soil Improvements

Improving your soil before planting lawn and gardens (native or exotic) is beneficial to helping them establish successfully and will assist them to become stronger specimens. This can save you money and effort in the long term by not having to replace them. Simple steps you can take to improve your soil include:

- Use compost or soil conditioner appropriate for your intended plantings
- Apply a wetting agent in a granular or liquid form
- Apply organic mulch to the soil surface after planting
- Use slow release fertiliser at appropriate times of the year (see below for more information)

Fertiliser Usage

Home lawns and gardens are a major source of nutrients entering wetlands, creeks and the river systems. Excess fertiliser used on home lawns and gardens eventually enters wetlands and rivers via the drainage system or through the soil into the groundwater table.

Excessive nutrients lead to algal blooms, which may result in plants and animal deaths.

To minimise negative impacts of fertiliser in the environment, select an appropriate fertiliser and follow the instructions. Fertilising in Spring or Autumn is recommended as summer fertilising may increase water usage and winter fertilising will be washed into stormwater drains or leached into groundwater.

For more advice, please visit [Fertilise Wise](#).



Edible Gardens

Any verge treatment that seeks to improve the amenity of an area is encouraged in the City. Vegetable or fruit gardens, often referred to as edible gardens, are permissible but are subject to approval by the City. Applications can be made using the [Application to Alter Verge Form](#).

There are a few things to consider when planting an edible verge garden:

1. The garden will need to be maintained by the resident, with no rotting fruit or vegetables for health and biosecurity reasons.
2. By placing the garden on the verge you do not have sole access. Anyone can legally pick the fruit and vegetables (including people not residing in the street).
3. There may not be any structures on the verge (including raised planter boxes, walls, fences, etc.).
4. Trees must be 1.8 metres from the road. Please contact the City for approval prior to planting a tree on the verge that is not on the City's list of approved tree species (see the section on Street Trees for more information).
5. No shrubs are allowed within 500mm of the road.
6. If the garden becomes neglected or the City receives complaints about rotting fruit, the City reserves the right to remove the vegetation.





Other Permissible Verge Treatments

The use of hardstand treatments other than for paths and crossovers is not normally encouraged within the City for safety, drainage, environmental and aesthetic reasons. The following treatments are allowed but require written permission from the City:

1. Paving
2. Synthetic Turf
3. Compact aggregate – ferrocure, cracker dust or road base

For these treatments to be considered on any portion of the verge, an **Application to Alter Verge Form** must be submitted to the City.

If you are considering installing a vehicle crossover, refer to the **Crossover information** and **Specification for the Construction of Vehicle Crossovers February 2022**.

Paving, Synthetic Turf and Compact Aggregate

1. The Applicant is responsible for:
 - a. Installing the paving, synthetic turf or compact aggregate as per the detailed plan submitted with the Application to Alter Verge Form and approved by the City.
 - b. Maintaining the paving, synthetic turf or compact aggregate in a safe and sound condition.
 - c. Reinstating the paving, synthetic turf or compact aggregate at the Applicant's cost in the event that any City or government utilities have reason to disturb the synthetic turf to work on their infrastructure.
2. There must be at least one opening of a minimum of one metre by one metre in the hardstand treatment for the placement of a tree or garden bed per property frontage and two or three openings in side verges for corner lots, subject to width and length of verge.
3. Paving, synthetic turf or compact aggregate must be installed with the finished levels, where possible, collecting the water and where possible, directing water flow into the tree well(s) or garden beds.

Street Trees

Trees provide an important service in urban areas due to their ability to absorb carbon and purify the air that we breathe. They also help to cool outdoor spaces particularly in heat-absorbing paved areas. Trees and other vegetation have a significant role in providing amenity, liveability, habitat for biodiversity and in supporting mental wellbeing for our community.

Planting Your Own trees

The City's approval is required for all tree plantings on City land including verges.

The City's Tree Guidelines stipulate the tree species that are acceptable within the City of Swan. Local native tree species that reflect the local character and conditions of the area are preferred. Please contact the City if you are wishing to plant any tree not listed in the Tree Guidelines.

- If you wish to plant a tree on your verge please contact the City to discuss your species preference and seek approval. Unauthorised planting on City land may result in the removal or relocation of the planting at the resident's cost.

Planting under power lines requires careful species selection.

For the safety of the community, there are requirements to be followed when planting trees on the verge. Please refer to the City's [Tree Guidelines](#) for information regarding setbacks and plant height restrictions.

Free Street Trees

The City has a free street tree program which is designed to improve streetscapes by planting trees that provide shade, improve air quality and offer habitat and food for native animals. Available trees are listed in the [Street Tree Selection Brochure](#) and are subject to availability and supply. Planting is completed in winter but requests may be placed at any time of the year by calling the City on **(08) 9267 9267** or emailing the City at swan@swan.wa.gov.au

Assessment of requests for street trees take into account location, available space, suitable species, existing themes, local character, local conditions, soil conditions, and customer's requirements.

For the best chance of survival, residents are encouraged to water the verge tree until it becomes established, normally for the first two summers.

Find out more about [street trees](#) online.

What isn't Allowed on the Verge?

Verges provide a buffer between the road and private property where essential services and public infrastructure may be located. As access to these services may be required some hardstand treatments are not permissible in the City of Swan.

The following cannot be installed on the verge:

- Asphalt
- Bitumen
- Concrete
- All structures including walls, planter boxes, letter boxes and seats
- Loose aggregate – pea gravel, blue metal, crushed brick or stone aggregate



Rural Verges

Rural Revegetation Program

The Rural Revegetation Program encourages revegetation using native species on rural properties by offering free native plants to City of Swan residents whose properties are 4,000 square metres (1 acre) or greater in size.

A range of trees, shrubs of various sizes, groundcovers and wetland/creek species are available. These species are adapted to Perth's soil and climate and have low watering requirements.

Clearing Vegetation within the Verge

Any proposed clearing of native vegetation or street trees within the verge must be approved by the City of Swan. Street trees, even in a rural setting, are considered property of the City of Swan and the City's approval is required to remove or alter trees. In addition, as rural verges may be home to threatened ecological communities and protected native vegetation, the unauthorised clearing is unlawful.

There may be some activities which are exempt from requiring a clearing permit, such as establishing or maintaining a fence line, clearing as detailed in an approved development application or other clearing that meets the requirements as listed by the Department of Water and Environmental Regulation. In any event, the City of Swan should be contacted in the first instance.

Hazard Reduction

Rural verges can require careful management of fuel loads to minimise the threat from fire. Landowners are encouraged to consider the verge adjoining their property as a part of their land's overall fuel management plan.

Removal of non-native vegetation (except for street trees) and non-permanent works such as slashing, reducing leaf litter and removing fallen branches are acceptable methods to address the fuel load. Burning of verges, clearing or thinning existing native vegetation is not allowed without appropriate approvals from the Department of Environment and Regulation and the City of Swan. If you wish to discuss the management of a rural verge please call the City of Swan on (08) 9267 9267.

Grassed verges that are accessible are mowed on an annual program. Additionally the City conducts a significant road tree pruning and verge clearing program to improve safety for all road users and reduce identified fire hazards.

Burn Permit

Burn permits can be applied for [online](#) or in person by visiting your local volunteer bushfire brigade, or for the metropolitan area by contacting City of Swan.

There are some conditions that may prevent you from being allowed to undertake burns on the verge, such as the presence or proximity to threatened ecological communities or native vegetation.

If a permit is issued, it will have compulsory conditions set relevant to current and forecasted weather and your circumstances. Further conditions may be imposed at the discretion of the permit issuing officer.

Other Considerations

Temporary Structures Placed in the Verge

Placing any temporary structure such as a skip bin, shipping container, building material or construction equipment on the verge is governed by the Local Government (Uniform Local Provisions) Regulations 1996 and requires approval from the City. A written application with a detailed plan is to be submitted via an Application for Temporary Structures, available at [Verge information](#).

Crossovers

A crossover is a vehicle pathway that connects your property to the edge of the road, for example, a brick paved driveway.

There are different types of crossovers, each with their own specifications, including dimensions, materials and preparation. Find out more information at [Crossover information](#).

If you have any queries please contact the City's engineering team on **(08) 9267 9267**.

Parking

In order to legally stop or park a vehicle on a verge, consent must first be provided by the adjacent property owner or occupier. There are, however, various locations throughout the City where verge parking is prohibited by signs and it is an offence to stop or park a vehicle on these verges at all times.

For more information, see [Safe and legal parking on verges](#). For full details and regulation please refer to the relating [Local Law 8.18 Parking and Stopping on a Verge](#).

If you wish to address inappropriate verge parking there are two approaches:

1. Contact the City on **(08) 9267 9267** when someone parks on your verge without your permission, to request enforcement action and a City Officer will attend as soon as possible.
2. Landscape your verge in line with approved verge treatments as listed in the allowable treatments section, or permissible treatments section of this document. No structures, such as rocks or bollards, are to be placed to deter parking.

City of Swan

2 Midland Square, Midland
PO Box 196 Midland WA 6936

9267 9267

www.swan.wa.gov.au



This document can be made available in
alternative formats and languages on request.

