

Bushfire Management Plan Coversheet

Site address:354 Barrabup Road, Nannup

Site visit:Yes☒No☐

Date of site visit:Day2ndMonthOctoberYear2024

Report author or reviewer:Mike Scott

Not accredited☐Level 1 BAL assessor☐Level 2 practitioner☐Level 3 practitioner☒

BPAD accreditation number:27795Accreditation expiry: MonthFebruaryYear2026

Bushfire management version number:V1.1

Bushfire management plan date:4 June 2025

If one or more of the following responses are yes, then these should be automatically referred to DFES.	Yes	No
Strategic planning is required to address SPP 3.7 and the Guidelines		✓
The application is a vulnerable land use	✓	

If one or more of the following responses are yes, and the decision-maker requires input from DFES, then the application can be referred.	Yes	No
The BAL rating has been calculated by a method other than Method 1 as prescribed by AS 3959		✓
An outcomes-based approach has been submitted to demonstrate compliance with the bushfire protection criteria		✓

Note: If a subdivision or development application meets all the acceptable solutions and does not otherwise trigger a referral as listed above, seeking advice from DFES on SPP 3.7 or other matters is at the discretion of the decision-maker.

The information provided within this bushfire management plan, to the best of my knowledge, is true and correct:

Signature of report author or reviewer:



Date:4-Jun-25



Loose Goose, Nannup

Bushfire Management Plan

(PREPARED FOR PLANNING APPLICATION ASSESSMENT PURPOSES)



Compiled in accordance with State Planning Policy 3.7 Bushfire and the Planning for Bushfire Guidelines

354 Barrabup Road, Nannup

Shire of Nannup

Development Application - Vulnerable Land Uses

4 June 2025

Job Reference No: 240427

DOCUMENT CONTROL

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Limitations: The protection measures that will be implemented based on information presented in this Bushfire Management Plan are minimum requirements and they do not guarantee that buildings or infrastructure will not be damaged in a bushfire, persons injured, or fatalities occur either on the subject site or off the site while evacuating. This is substantially due to the unpredictable nature and behaviour of fire and fire weather conditions. Additionally, the correct implementation of the required protection measures (including bushfire resistant construction) and any other required or recommended measures, will depend upon, among other things, the ongoing actions of the landowners and/or operators over which Bushfire Prone Planning has no control. All surveys, forecasts, projections and recommendations made in this report associated with the proposed development are made in good faith based on information available to Bushfire Prone Planning at the time. All maps included herein are indicative in nature and are not to be used for accurate calculations. Notwithstanding anything contained therein, Bushfire Prone Planning will not, except as the law may require, be liable for any loss or other consequences whether or not due to the negligence of their consultants, their servants or agents, arising out of the services provided by their consultants. Copyright © 2024 BPP Group Pty Ltd: All intellectual property rights, including copyright, in format and proprietary content contained in documents created by Bushfire Prone Planning, remain the property of BPP Group Pty Ltd. Any use made of such format or content without the prior written approval of Bushfire Prone Planning, will constitute an infringement on the rights of the Company which reserves all legal rights and remedies in respect of any such infringement.					
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STATEMENT OF PURPOSE – THE ‘PLANNING’ BUSHFIRE MANAGEMENT PLAN

EXPLANATORY INFORMATION

SITE/USE PLANNING

This BMP is produced to present the information necessary for a planning proposal's assessment against the State's bushfire planning requirements. The developed information is to inform and assist decision-making authorities, planners, landowners/proponents and referral agencies in their implementation WA's State Planning Policy 3.7 Bushfire – and where relevant, any supplementary provisions of a local planning scheme or policy.

Policy Document Versions Applied in This BMP	State Planning Policy 3.7 Bushfire (SPP 3.7)	November 2024	Planning for Bushfire Guidelines (supporting SPP 3.7)	November 2024
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The Stated Intent of SPP 3.7 is to implement effective, risk based land use planning and development which in the first instance avoids 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.

SITE OPERATIONS

This BMP is not an 'operational' BMP for property and operations management. Such a BMP would apply additional and more specific bushfire protection measures to more comprehensively reduce the level of risks associated with a bushfire event. These being the potential loss of life, injury, or destroyed or damaged assets which results in personal loss and economic loss.

However, this 'planning' BMP does establish certain responsibilities for the implementation and maintenance of the bushfire protection measures that are considered the minimum for bushfire planning decision making.

BUSHFIRE RESISTENT CONSTRUCTION

This 'planning' BMP is not required to consider the requirement to construct certain buildings, in designated bushfire prone areas, to the standard corresponding to the Bushfire Attack Level (BAL) they are subject to. This requirement is dealt with under the State Building Act 2011/Building Regulations 2012 and the referenced Building Code of Australia.

DETERMINED BUSHFIRE ATTACK LEVEL (BAL) RATINGS AND CONSTRUCTION – CAUTION!

For construction purposes a determined (not indicative) BAL rating is required to be known and a BAL Certificate produced for submission with a building application. This establishes the construction design and materials that are to be complied with in accordance with AS 3959 Construction in bushfire prone areas (as amended) and/or NS 300 NASH Standard Steel Framed Construction in Bushfire Areas (as amended).

This 'planning' BMP cannot necessarily determine a BAL rating that will apply to a future building. All variables required for that calculation may not be known at the assessed stage of planning. For example, actual location of a building footprint on a lot and/or any classified vegetation that will remain, at the time of construction, within the lot or on neighbouring lots.

This 'planning' BMP is only required to identify if a viable sized building can be located on a lot and be subject to a BAL rating not exceeding BAL-29, based on certain allowable assumptions. This is a planning requirement not a building requirement and a BAL contour map can be used to illustrate this information as an 'indicative' BAL rating.

Be aware that typically you cannot derive the determined BAL rating for a future building(s) on a specific lot from a BAL contour map (when presented in a BMP prepared for planning approval purposes). This is only possible in limited circumstances.

Planning assessment requirements are different to building assessment requirements. Refer to explanatory information above and Appendix B1 for additional information.

1 THE PLANNING PROPOSAL

1.1 Details, Plans and Maps

SUBJECT LAND AND PROPONENT (LANDOWNER)		
The Subject Land / Site	Lot 4027 on Plan 137676 in the Shire of Nannup	
Total Area of Subject Land / Site	16,2140 hectares	
Proponent	Lyn and Kieran Curtis	
Entity Commissioning Production of the BMP	Lyn and Kieran Curtis	
THE PLANNING PROPOSAL STAGE AND TYPE		
Strategic Planning Document	☐	
Structure Plan	☐	
Subdivision Application	☐	
Development Application	☒	Construction and/or use of a caravan park, nature-based park or camping ground that is subject to bushfire planning requirements.
DESCRIPTION		
Loose Goose is zoned Rural and is an existing tourism property, with three chalets and a function centre within the North Nannup subdivision. The proposed development involves 20 caravan and camping sites within an area of low impact, primarily grassland area of the property. An Ablution block will be located at the northern end of the area, and a Campers Kitchen will be located adjacent to the existing shed. A second Ablution block will be located towards the southern end of the area at a later stage. The business owners also operate a shuttle service for cycle tourism, enabling them to offer additional packages and target this emerging demographic. There are potential synergies with the existing use of the property and the caravan and camping area. It is anticipated there will be approximately 100 people onsite (based on 4 people per caravan site) and 4 people per chalet. Maximum capacity based on 10 people per caravan site and a function operating would be approximately 365 persons. The Shire of Nannup Local Planning Strategy recognises the economic value of tourism developments, whilst protecting and preserving the natural environment. This proposal is consistent with the Shire of Nannup Local Planning Strategy # 4 and the Caravan Parks and Camping Grounds Regulations 1997. A third of the property (the southern section) is outside of the bushfire prone area.		

Vulnerable Land Use Determination			
Applying the definition established in SPP 3.7:			
	A land use which is designed to accommodate people who are less physically or mentally able and likely to present evacuation challenges; and/or		☒
	A land use which due to the building design or use, or the number of people accommodated, likely to present evacuation challenges; and/or		☒
	A land use which involves visitors who are unfamiliar with the surroundings.		☒
Applying the guidance established in the Guidelines, Appendix B5:			
	For day uses, consideration is to be given to the location and to the number of employees and visitors on-site at any one time; and/or		☐
	The decision-maker considers that the preparation of a bushfire emergency plan is warranted, and the use should be considered vulnerable.		☒
<u>Assessment Supporting Details:</u> As a Vulnerable Tourism site in a Bushfire Prone Area where Class A Forest is the dominant vegetation surrounding the property to the north, south and west, early evacuation is key to prioritising safety of patrons and guests in a bushfire emergency. The primary road network to the Nannup townsite is simple to navigate.			
Development Type for Assessment Against the Bushfire Protection Criteria			
Development Vulnerable Land Use - Tourism Land Uses and Day Uses	For the construction, and/or use of, or additions to a habitable building for a vulnerable tourism land use. <i>[Guidelines s8]</i>	Tourist and visitor accommodation.	☒
		Day Uses (no overnight stay)	☐
		Outdoor Events (may include overnight camping).	☐
		Caravan Park, nature based park and/or camping ground, with or without a habitable building(s).	☒
<u>Assessment Supporting Details:</u> None required			

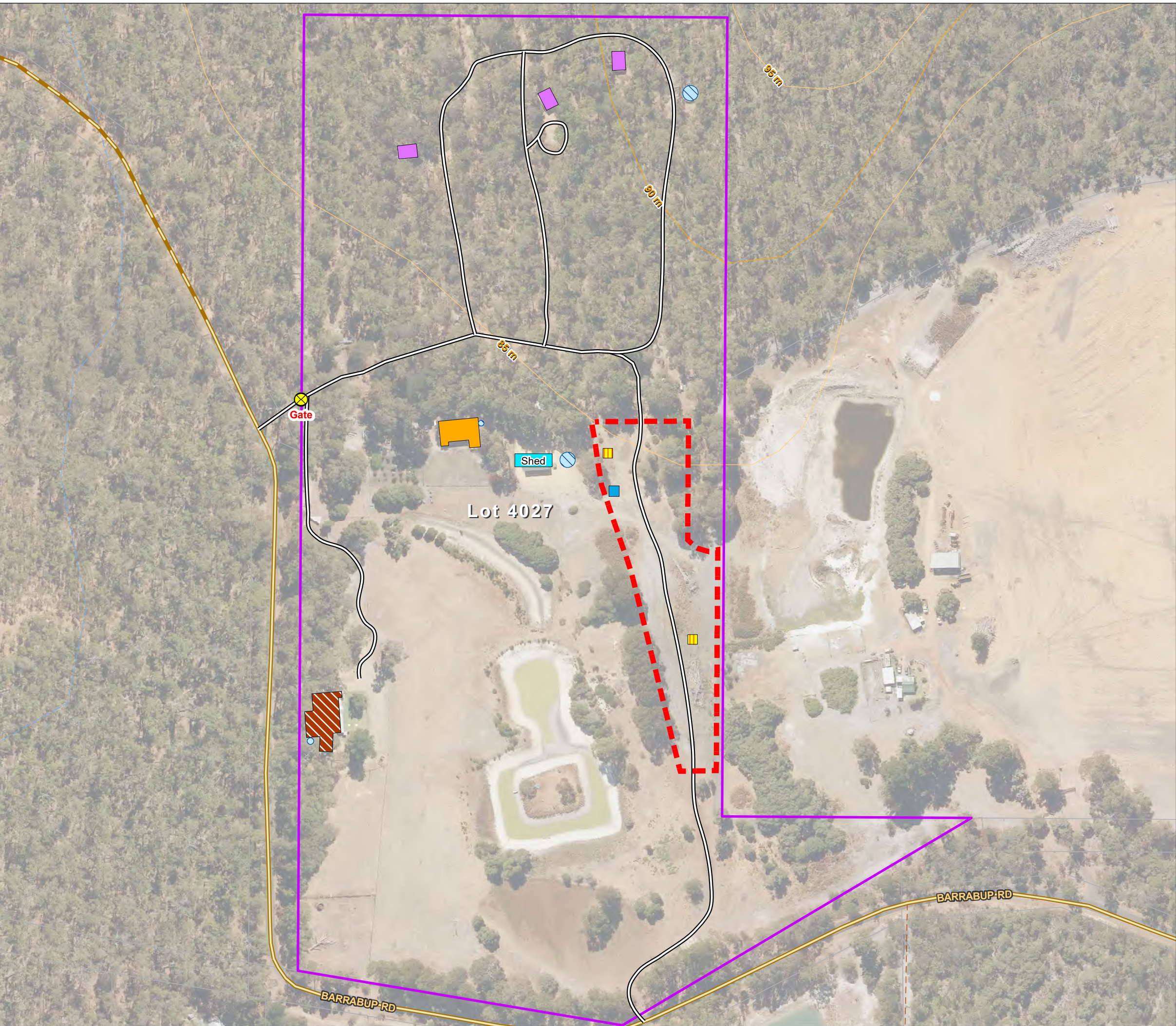
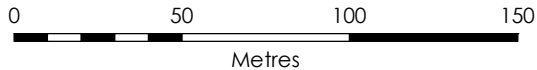


Figure 1.1
Proposed Development

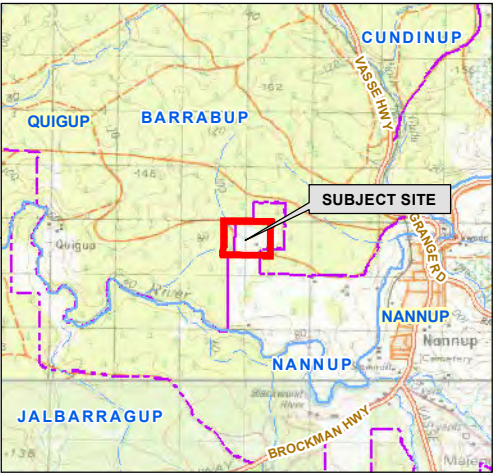
Lot 4027 on Plan 137676, Area : 16.2140 sq m
354 Barrabup Road,
NANNUP 6275
SHIRE OF NANNUP

----- **LEGEND** -----

-  Subject Site
-  Other Lots
-  Gate
-  Residence / Office
-  Function Centre
-  Cottages
-  Water Tank
-  Shed
-  Ablution Block
-  Camp Kitchen
-  Caravan Area
-  Driveway



----- **LOCALITY** -----



Aerial Imagery : Landgate/SIIP
Image Date : April 2024

Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Mercator Units: Metre
Map compiled by: Ian Ross 11/12/2024
Map updated by: Ian 11/12/2024
A3 Scale 1:2,250

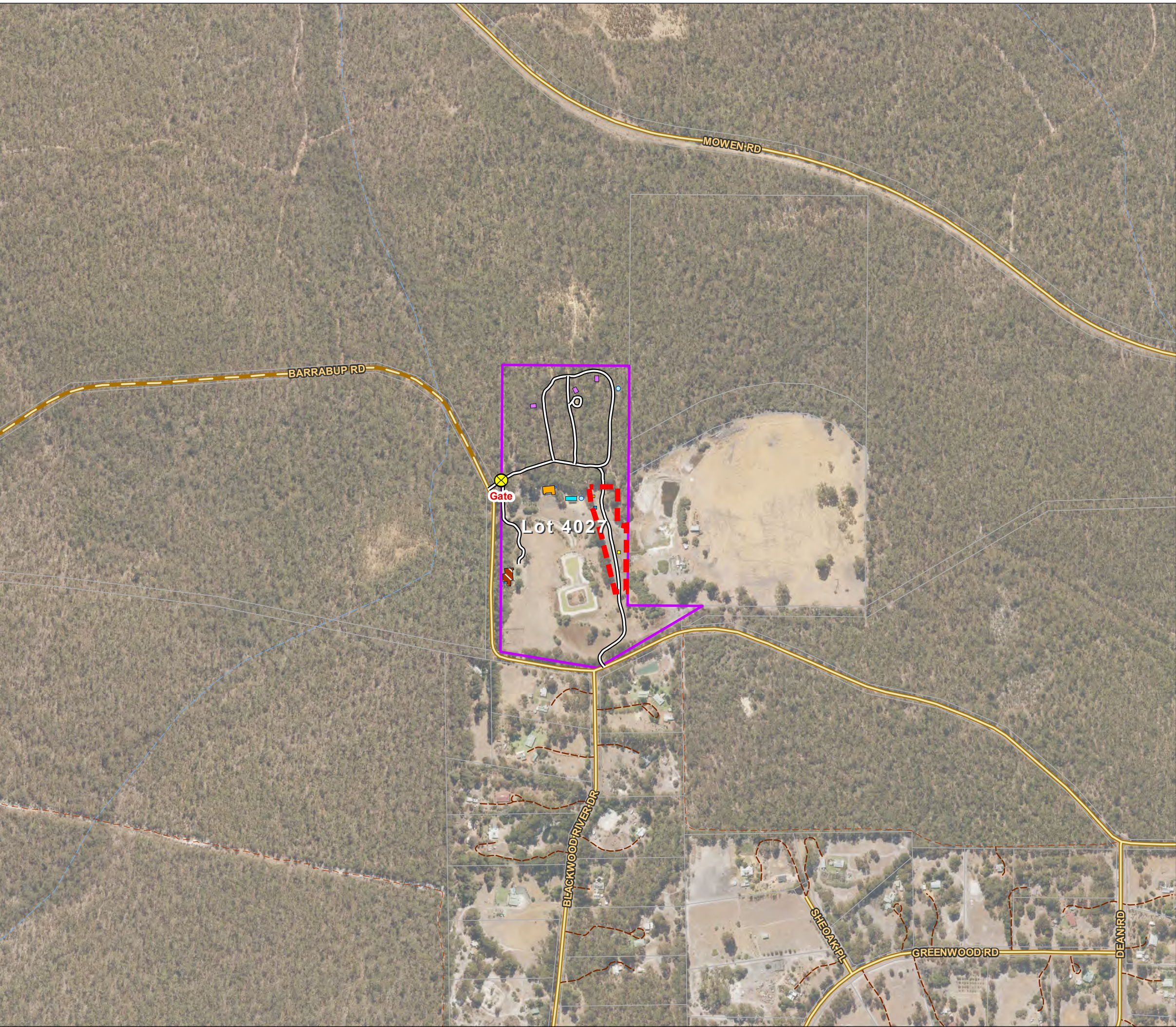
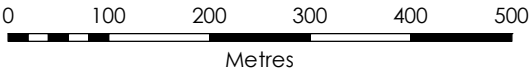


Figure 1.2
Proposed Development

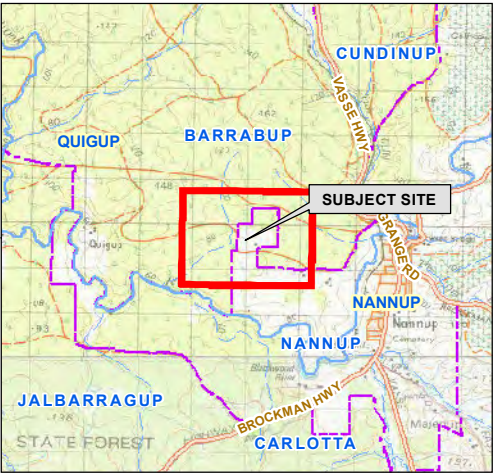
Lot 4027 on Plan 137676, Area : 16.2140 sq m
354 Barrabup Road,
NANNUP 6275
SHIRE OF NANNUP

----- **LEGEND** -----

- Subject Site
- Other Lots
- Gate
- Residence / Office
- Function Centre
- Cottages
- Water Tank
- Shed
- Ablution Block
- Camp Kitchen
- Caravan Area
- Driveway



----- **LOCALITY** -----



Aerial Imagery : Landgate/SLIP
Image Date : April 2024

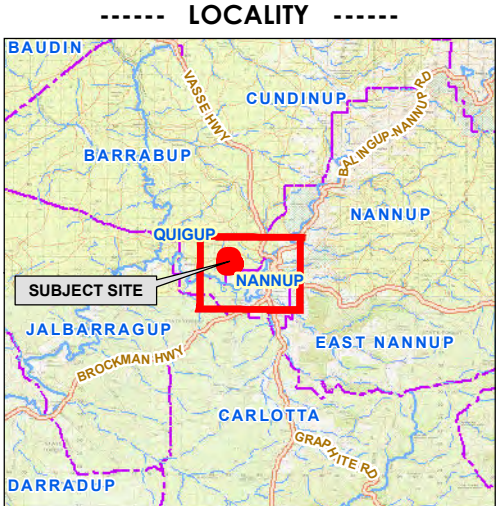
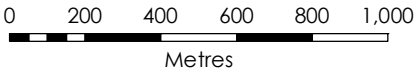
Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Mercator Units: Metre
Map compiled by: Ian Ross 11/12/2024
Map updated by: Ian 11/12/2024
A3 Scale 1:7,500



Figure 1.3
Location Plan

Lot 4027 on Plan 137676, Area : 16.2140 sq m
354 Barrabup Road,
NANNUP 6275
SHIRE OF NANNUP

- **LEGEND** -----
- Subject Site
 - Locality / Suburb
 - Bush Fire Brigade
 - State Emergency Service Unit
 - Volunteer Fire & Rescue Service
- Reserves**
- Reserves
- DBCA Legislated Lands and Waters**
- Section 34A Freehold
 - Section 5(1)(h) Reserve
 - State Forest



Aerial Imagery : Landgate/SLIP
Image Date : April 2024

Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Mercator Units: Metre
Map compiled by: Ian Ross 11/12/2024
Map updated by: Ian 11/12/2024
A3 Scale 1:20,000

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Map Document Path / Name: K:\Projects\Jobs 2024\240427 - Loose Goose Chalets Nannup (BAB STA)\240427 - SV&BAB - Aug 2024\Mapping\MXD\240427_Fig1-3_LOC_Loose Goose.mxd

1.2 Identification of the Requirement to Apply SPP 3.7

1.2.1 The Initial Trigger to Give SPP 3.7 Due Regard

A PLANNING APPLICATION IS TO BE SUBMITTED TO THE LOCAL GOVERNMENT FOR DETERMINATION

The proposed development is for the construction and/or use of a building and the local government is the decision maker. A development application must be submitted, and due regard will be given to SPP 3.7 in accordance with the following triggers.

The local government determination is made under:

- The Planning and Development Act 2005, its relevant subsidiary legislation (e.g. Regulations) and associated State Planning Policies; and
- The local government's Local Planning framework (i.e. Strategy / Scheme and Policy as applicable) that establishes approved variations and additions to the above legislation.

The Planning and Development (Local Planning Schemes) Regulations 2015, Schedule 2 Part 10A – Bushfire risk management, in summary establishes:

1. If the proposed development 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; and
- (c) Is not the use of a dwelling as hosted or unhosted short-term rental accommodation (STRA) which is specifically excluded; and

2. The development site is wholly or partly within a designated bushfire prone area (Map of Bushfire Prone Areas), requiring the developer to have prepared a BAL assessment for the development site; then

3. **Where the pre-development (before the establishment of an APZ), calculated bushfire attack level of the development site is BAL-40 or BAL-FZ, then the developer must have development approval to commence any development on the development site.**

As the proposed development includes the construction of a building, in addition to requiring planning approval (for which SPP 3.7 will be given due regard), requires a building permit (under the Building Act 2011 / Building Regulations 2012) and is subject to the Building Code of Australia. A building permit application must be submitted to the local government.

The proposed development is in a designated bushfire prone area (Map of Bushfire Prone Areas) and is a class of building subject to bushfire construction requirements in accordance with the Building Code of Australia (i.e. Classes 1, 2, 3 buildings and associated Class 10a, and certain Class 9 buildings).

A Bushfire Attack Level (BAL) will need to be calculated for the building and determines the bushfire resistant construction requirements to be applied. The rating is stated in a BAL Certificate to be submitted with the building permit application.

The proposed development is for the use of a dwelling as hosted or unhosted short-term rental accommodation.

Under the relevant state legislation, LPS Regulations 2015, Schedule 2, Part 10A, cl. 78B(1A), bushfire risk management is not required for this development and consequently SPP 3.7 does not apply.

However, the local government under its Local Planning framework (i.e. Strategy/Scheme and Policy as applicable), requires that certain defined bushfire protection measures, or the measures, established by SPP 3.7 and the Guidelines (the bushfire protection criteria), or a variation of these, are to be applied.

The details of these requirements are presented in Section 5.1 of this BMP.

Assessment Supporting Details:

The development site is located in a designated Bushfire Prone Area and is classified as a Vulnerable Tourism site.

All caravan and camping sites will be located in an area of BAL – 29 or lower.

1.2.2 The Assessment Triggers Established by SPP 3.7/Guidelines

EXPLANATORY INFORMATION

Note:

'Development' means the development or use of any land, including (a) any demolition, erection, construction, alteration of or addition to any building or structure on the land (b) the carrying out on the land of any excavation or other works (Planning and Development Act 2005, Part 1, s.4; and

'Development Site' means that part of a lot on which a building that is the subject of development stands or is to be constructed - Planning and Development (LPS) Regulations 2015, s.78A.

For development applications, the triggers for the application of State Planning Policy 3.7 Bushfire (SPP 3.7) established in the Planning for Bushfire Guidelines (Guidelines) – at the start of Sections 6 - 8 - are aligned with the current version of the LPS Regulations 2015. Consequently, these will be applied in this BMP.

The triggers for the application of (SPP 3.7) established by SPP 3.7 Part 4 will not be applied in their entirety in this BMP for the following reason:

As of 18 November 2024, SPP 3.7 contains 'development application' triggers that are not yet established by the current version (3 November 2024) of the deemed provisions of the LPS Regulations 2015, Schedule 2, Part 10A – Bushfire risk management.

ASSESSMENT TRIGGERS

REQUIREMENTS ESTABLISHED BY SPP 3.7 AND THE GUIDELINES		APPLICABLE
	➤ Designated bushfire prone and 'Area 2' on the Map of Bushfire Prone Areas (refer to Figure 1.4).	Yes
AND		
2	THE PLANNING PROPOSAL WILL:	
	➤ Result in the intensification of development (or land use); OR	Yes
	➤ Result in an increase of visitors, residents or employees; OR	Yes
	➤ Adversely impact or increase the bushfire risk to the subject or surrounding site(s).	N/A
AND		
3	THE PLANNING PROPOSAL IS A:	
	➤ (Source: SPP 3.7, Part 4) A <u>development application for construction and/or use</u> of a caravan park, nature-based park or camping ground (whether it contains a habitable building(s) or not), and where the development site(s) has a BAL rating above BAL-LOW.	Currently Not Enforceable. See 'Explanatory Information'
	➤ (Source: Guidelines s8) This section applies to <u>development applications</u> in areas designated as Area 1 (Urban) or Area 2 on the Map of BPA for the <u>construction and/or use of, or additions to</u> : ○ A habitable building for: - A vulnerable commercial or industrial land use; - A vulnerable Class 9 building identified within the 2022 edition of the Building Code of Australia (BCA); or - A vulnerable tourism land use.	Yes

- A caravan park, nature-based park and/or camping ground, with or without a habitable building(s).

Note: A development application for additions to a vulnerable land use should address the bushfire protection criteria for the entire site. It should be noted that there are no requirements under SPP 3.7 or the Guidelines to retrofit existing buildings to the appropriate bushfire construction standard, or any requirement for these existing buildings to be located within an area with a radiant heat impact not exceeding 29 kW/m² (BAL-29).

Assessment Supporting Details: The Shire of Nannup requires that all caravan and camp sites can achieve a BAL-29 radiant heat impact and Asset Protection Zone. This can be achieved with some minor modification and removal of existing Class A Forest vegetation immediately surrounding the proposed site.

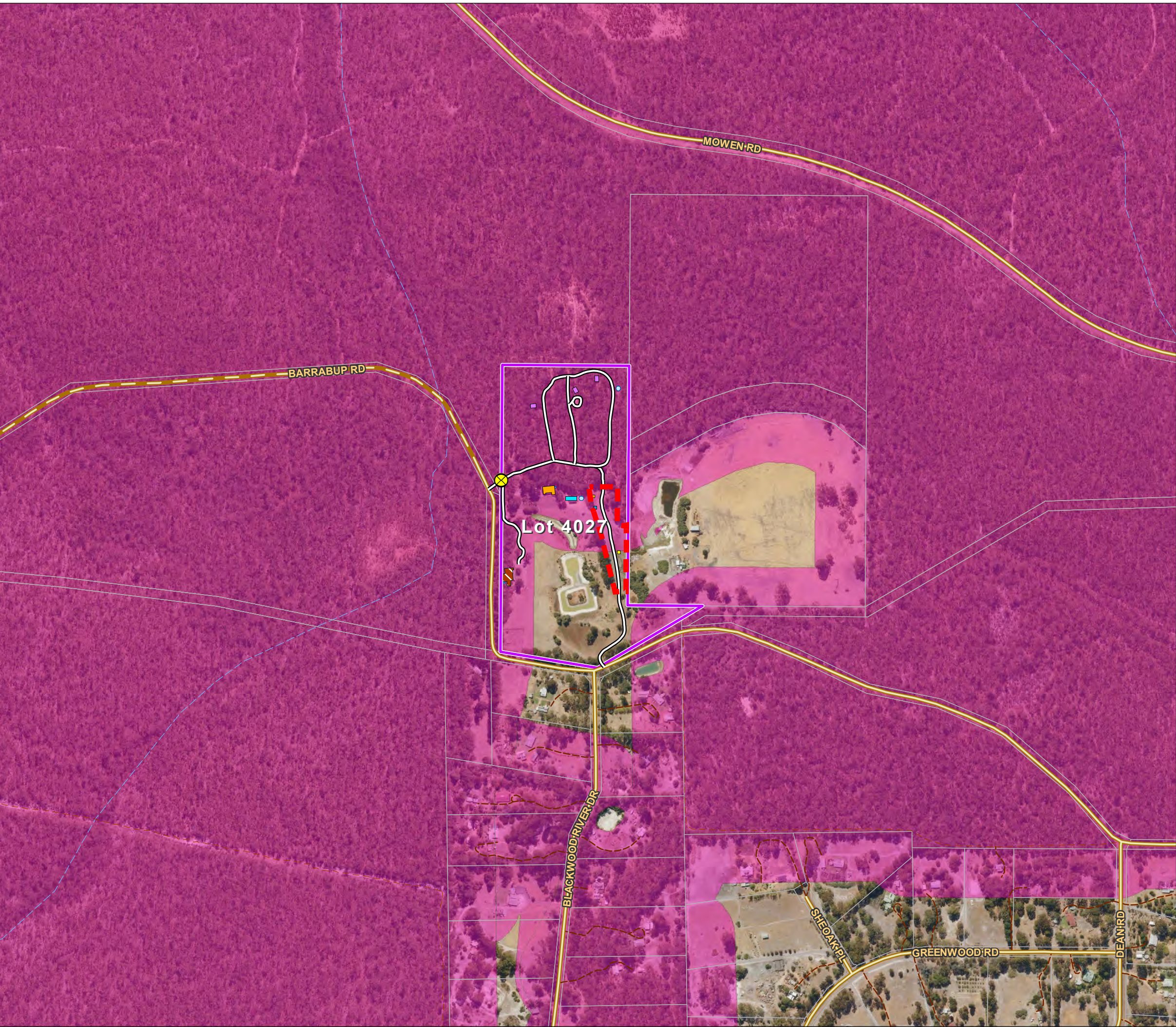


Figure 1.4
Bushfire Prone Area

Lot 4027 on Plan 137676, Area : 16.2140 sq m
354 Barrabup Road,
NANNUP 6275
SHIRE OF NANNUP

----- **LEGEND** -----

- Subject Site
- Other Lots
- Gate
- Residence / Office
- Function Centre
- Cottages
- Water Tank
- Shed
- Ablution Block
- Camp Kitchen
- Caravan Area
- Driveway

Bushfire Prone Area OBRM_023

- Bushfire Prone Area 2

0 100 200 300 400 500
Metres

----- **LOCALITY** -----

Aerial Imagery : Landgate/SLIP
Image Date : April 2024

Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Mercator Units: Metre
Map compiled by: Ian Ross 11/12/2024
Map updated by: Ian 11/12/2024
A3 Scale 1:7,500

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Map Document Path / Name: K:\Projects\Jobs 2024\240427 - Loose Goose Chalets Nannup (BAB STA)\240427 - SV&BAB - Aug 2024\Mapping\MXD\240427_Fig1-4_BPA_Loose Goose.mxd

1.3 Required 'Bushfire Planning' Assessments and Documents

INFORMATION PRESENTED IN THIS ‘PLANNING’ BMP (OR THE BEP) - PROVIDED TO ACCOMPANY THE PROPONENT’S PLANNING SUBMISSION							
The requirements are established by SPP 3.7 Part 4, Guidelines Section 1.2, 4.4, 5.5, 6.4, 7.2, and 8.3. The column identifying applicable requirements for the subject planning proposal is highlighted green.		Strategic Planning Document		Structure Plan / Subdivision Application		Development Application	
Required Information	Details	Map of Bushfire Prone Areas Designation					
		Area 1 (Urban)	Area 2	Area 1 (Urban)	Area 2	Areas 1 & 2	
Environment - Identification of environmental, biodiversity or conservation values on the subject site(s)	Presented in the BMP. When relevant, how proposal siting and design avoids and/or minimises clearing of native vegetation to achieve bushfire protection measures is identified.	BUSHFIRE PLANNING ASSESSMENTS ARE NOT REQUIRED	✓	✓	✓	✓	
BLA - Broader Landscape Assessment	Presented in the BMP and considers proposal location suitability. Provides an understanding of vegetation extent, potential for landscape scale bushfire, road network and suitable destinations within the area up to 2 km from the planning proposal.		✓	N/A	✓	N/A	
BHL - Bushfire Hazard Level Assessment (pre-development)	Presented in BMP when relevant. Can include detail of treatments required to achieve BHL of moderate and/or low.		✓	-	-	-	
BAL - Bushfire Attack Level Assessment	Results to be presented in the BMP in BAL contour map format as a requirement and in table format as an additional option.		-	✓	✓	-	
	Results to be presented in the BMP in table format and/or BAL contour map format – dependant on which is more efficient and effective at presenting the results (e.g. BAL contour map for multiple buildings).		-	-	-	✓	
BPC - Assessment against the relevant Bushfire Protection Criteria (E1 – E4)	Presented in BMP. Strategic planning will necessarily focus on Element 1: Location. Can demonstrate compliance using acceptable solutions and/or an outcomes-based approach.		✓	✓	✓	✓	
				NOT E1		NOT E1	
BEP - Bushfire Emergency Plan	Provided as a separate document or an addition / modification to an existing BEP or site Emergency Management Plan.		N/A	N/A	N/A	Vulnerable Land Uses Only	
LMP – Landscape Management Plan	Provided as a separate document or an addendum to the BMP when required						

1.4 Other Documents Relevant to Preparing the BMP

EXPLANATORY INFORMATION					
This section identifies any known assessments, reports or plans that have been conducted and prepared previously, or are being prepared concurrently, and are relevant to the subject planning proposal. They may have implications for the assessment of bushfire hazard threats and the identification and implementation of the bushfire protection measures that are established by this BMP.					
RELEVANT DOCUMENTS					
Document	Relevant	Exists	To Be Concurrently Developed	Copy Provided by Proponent / Developer	Title
Structure Plan	No	No	No	No	-
Preliminary bushfire advice (may include a BAL contour map)	Yes	Yes	-	-	- 240427 – BAL Contour map and Site Assessment report
<u>Implications for the BMP:</u> A site visit in October 2024 determined that a BAL – 29 can be achieved for the development site. A BAL Contour map was developed to provide guidance to the proponents.					
Bushfire Emergency Plan	Yes	Yes	Yes	Yes	- evacuation poster
<u>Implications for the BMP:</u> Currently guests receive an evacuation poster developed by the property owners. A Bushfire Emergency Evacuation Plan and Poster will be developed concurrently with this BMP.					
Bushfire Risk Report	No	No	No	No	-
Environmental Asset or Vegetation Survey	No	No	No	No	-
Landscape Management Plan	Yes	No	Yes	No	-
Refer to Section 2.3 for details.					
Revegetation Plan	No	No	No	No	-
Refer to Section 2.3 for details.					

2 ENVIRONMENTAL CONSIDERATIONS – NATIVE VEGETATION

EXPLANATORY INFORMATION

Some bushfire prone areas also have high biodiversity values. SPP3.7 objective 5.4 prioritises the retention of native vegetation for biodiversity conservation, environmental protection and landscape amenity.

Clearing or modification of native vegetation for the purpose of land use or development is assessed under **State Planning Policy 2: Environment (SPP 2)**, **State Planning Policy 2.8: Bushland policy for the Perth Metropolitan Region (SPP 2.8)** and relevant environmental legislation. A key objective of these policies is to avoid development that may result in unacceptable environmental damage.

Any 'modification' or 'clearing' of vegetation to reduce bushfire risk is considered 'clearing' under the **Environmental Protection Act 1986** (EP Act) and requires a clearing permit under the **Environmental Protection (Clearing of Native Vegetation) Regulations 2004** (Clearing Regulations) – unless for an exempt purpose.

Clearing native vegetation is an offence, unless done under a clearing permit or the clearing is for an exempt purpose. Exemptions are contained in the EP Act or are prescribed in the Clearing Regulations (note: these exemptions do not apply in environmentally sensitive areas).

The **Department of Water and Environmental Regulation** (DWER) is responsible for issuing 'clearing' permits and the framework for the regulation of clearing. Approvals under other legislation, from other agencies, may also be required, dependent on the type of flora or fauna present.

Local Planning Policy or Local Biodiversity Strategy: Natural areas that are not protected by the above Act and Regulation (or any other National or State Acts) may be protected by a local planning policy or local biodiversity strategy. Permission from the local government will be required for any modification or removal of native vegetation in these Local Natural Areas (LNA's). Refer to the relevant local government for detail.

For further Information refer to [Native vegetation clearing permits | Western Australian Government](#), the Planning for Bushfire Guidelines (as amended) and the Bushfire and Vegetation Factsheet - WAPC, Dec 2021.

2.1 Biodiversity or Conservation Values Identified

EXPLANATORY INFORMATION

The required information, relevant to bushfire planning and informing the production of this BMP, is sourced and presented as indicated below.

Note that where a 'desktop' assessment has been conducted, this should not be considered a replacement for a full Environmental Impact Assessment. It is a summary of potential biodiversity or conservation values at the subject site, inferred from information contained in public available datasets and/or reports, which are only current to the date of last modification.

The information provided in the BMP should be considered indicative where the subject site has not previously been subject to a site-specific environmental assessment by an appropriate professional.

The required information is sourced from the environmental/planning consultant report developed for the subject site and provided to the bushfire consultant (details below when applicable).

The information it contains is not repeated in this BMP as it will accompany the planning submission. The implications for the subject planning proposal and this BMP are stated below when relevant.

No Report
Available /
Provided

The required information is sourced by the bushfire consultant as a 'desktop' assessment from publicly available data bases and/or a local government's local biodiversity strategy or local planning strategy.

When applicable, this information is presented on the following pages of this BMP.

Yes - Fully

IDENTIFICATION OF RELEVANT BIODIVERSITY OR CONSERVATION VALUES							
Dataset	Relevant to Subject Planning Proposal	Influence on Bushfire Threat Levels and / or Application of Bushfire Protection Measures	Information Source(s) Applied			Further Action Required by Proponent	
			WA Govt. Agency Dataset (ID)	Landowner or Developer Statements	Environmental Asset or Vegetation Survey Report		
Department of Biodiversity, Conservation and Attractions (DBCA) Datasets							
Conservation Category Wetlands and Buffer (geomorphic wetlands – relevant area)	-	No	☐	DBCA-	☐	☐	None
RAMSAR Sites (wetlands of international importance)	-	No	☐	DBCA-010	☐	☐	None
Threatened and Priority Flora	-	No	Restricted Scale of Data Available (security)	DBCA-036	☐	☐	None
Threatened Ecological Communities	-	No		DBCA-038	☐	☐	None
Legislated Lands and Waters (national/conservation parks, nature/crown reserves, state forest)	-	No	☒	DBCA-011	☐	☐	None
Department of Planning, Lands and Heritage (DPLH) Datasets							
Bush Forever Areas 2000	-	No	☐	DPLH-019, 022 and MRS Bush Forever	☐	☐	None
Department of Water and Environmental Resources (DWER) Datasets							
Clearing Regulations – Environmentally Sensitive Areas	-	No	☐	DWER-046	☐	☐	None
Swan Bioplan Regionally Significant Natural Areas 2010	-	No	☐	DWER-070	☐	☐	None



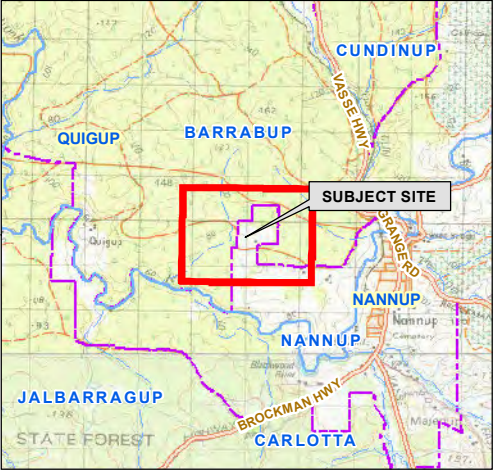
Figure 2.1
Environmental Considerations

Lot 4027 on Plan 137676, Area : 16.2140 sq m
354 Barrabup Road,
NANNUP 6275
SHIRE OF NANNUP

- **LEGEND** -----
- Subject Site
 - Other Lots
 - Gate
 - Residence / Office
 - Function Centre
 - Cottages
 - Water Tank
 - Shed
 - Ablution Block
 - Camp Kitchen
 - Caravan Area
 - Driveway
- DBCA Legislated Lands and Waters**
- State Forest

0 100 200 300 400 500
Metres

----- **LOCALITY** -----



Aerial Imagery : Landgate/SLIP
Image Date : April 2024

Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Mercator Units: Metre
Map compiled by: Ian Ross 11/12/2024
Map updated by: Ian 11/12/2024
A3 Scale 1:7,500

Disclaimer and Limitation: This map has been prepared for bushfire management planning purposes only. All depicted areas, contours and any dimensions shown are subject to survey. Bushfire Prone Planning does not guarantee that this map is without flaw of any kind and disclaims all liability for any errors, loss or other consequence arising from relying on any information depicted.
Map Document Path / Name: K:\Projects\Jobs 2024\240427 - Loose Goose Chalets Nannup (BAB STA)\240427 - SV&BAB - Aug 2024\Mapping\MXD\240427_Fig2-1_ENV_Loose Goose.mxd

2.1.1 Locally Significant Conservation Areas – Local Natural Areas (LNA)

IDENTIFICATION OF LOCALLY SIGNIFICANT CONSERVATION AREAS							
Land with Environmental, Biodiversity and Conservation Values	Relevant to Proposal	Location Relative to Subject Site	Influence on Bushfire Threat Levels and / or Application of Bushfire Protection Measures	Information Source(s) Applied			Further Action Required
				Relevant Dataset	Landowner or Developer	Environmental Asset or Vegetation Survey	
Native Vegetation / Remnant Vegetation	No	Adjoining	No	☒ DBCA-011	☐	☐	None
Riparian Zones / Foreshore Areas	No	-	No	☐	☐	☐	None
Habitat Vegetation and Wildlife Corridors	Possible	Within	No	☐	☐	☐	None

The Jarrahwood State Forest borders the property on the western, northern and lower east boundaries. Internal vegetation and wildlife corridors and tracts of vegetation exist onsite. These have no influence on bushfire threat or the proposed development as there are large areas of managed grassland between classified vegetation areas.

2.2 Response of the Planning Proposal to Protection of Native Vegetation

The protection of native vegetation is to be prioritised by avoiding areas that would require clearing or modification of native vegetation, specifically for the purpose of bushfire mitigation (BMP Manual, November 2024 DPLH).

SOLUTIONS APPLIED TO MINIMISE NATIVE VEGETATION REMOVAL / MODIFICATION	
Clearing and/or modification of native vegetation is proposed and necessary.	Yes
<u>Proposed Clearing:</u> A dead Marri tree within Area 2 immediately adjacent to the proposed caravan and camp area will be removed to achieve a Class B Woodland classification. <u>Proposed Modification:</u> Existing Marri trees adjacent to the proposed caravan and camp area will be under-pruned to mitigate bushfire safety. Along the western boundary of the proposed caravan and camp area there is a row of Eucalypts which are currently a wind break to paddocks. These trees will be under-pruned and fallen logs and leaf litter removed and managed. Unmanaged grasses will be mown. <u>Demonstration of why the planning proposal cannot be re-designed or re-located to avoid clearing and/or modifying native vegetation.</u> Ensuring an Asset Protection Zone around caravan and camp sites to the lowest BAL rating possible improves bushfire mitigation actions. The row of Eucalypts to the west of the proposed development site are planted, they are not native or remnant bushland.	
Conservation Response	
The proposal reserves native vegetation for conservation, recreation or environmental protection purpose. These can include ecological linkage, local natural area, waterway, or foreshore area or wetland buffer.	Yes
Siting / Design / Construction Responses	
Reduction in the proposed intensification of land use or development potential.	Considered and applied
Assessment Supporting Details: The proposed development site has been designed to align with the natural landscape and is positioned in an area that is currently under-utilised and with little existing remnant vegetation.	
Containing or clustering areas of intensification of land use to reduce clearing requirements.	Yes
Assessment Supporting Details: The northern section of the property is native forest. This has been retained and the proposed development has been located in an area that is predominantly clear from native vegetation.	
Consideration of locating proposed development to have greater initial vegetation separation distances from bushfire hazards by utilising non-vegetated interfaces.	N/A
Modification or redesign of the proposed areas of intensification of land use to avoid areas with high environmental, biodiversity or conservation values.	N/A

The proposal has applied a reduction in the intensification of land use or development potential (e.g. reduced lot yield or smaller building footprints), to ensure the retention of greater areas of native vegetation while achieving the required vegetation separation distances to limit exposure to unacceptable levels of potential bushfire impact.	Yes
Assessment Supporting Details: The proposed development could have been located within the Class A Forest area, however, has been located in an area of Grassland to retain a greater area of native vegetation.	
The proposal situates required non-vegetated elements (e.g. footpaths, paved areas, roads, parking, open drainage channels, and major services delivery installed in common corridors), between bushfire hazards and elements at risk – to effectively achieve required vegetation separation distances with less vegetation clearing and/or modification.	Yes
Assessment Supporting Details: The ablution block, shed and proposed camp kitchen are located in closer proximity to the Class A Forest, ensuring that caravan and camp sites are developed in areas primarily adjacent to Class G Grassland.	
The proposal applies building envelopes, and these have located to minimise the requirement to clear and/or modify native vegetation.	N/A
The proposal utilises the clustering habitable buildings to reduce requirements for native vegetation clearing and/or modification.	N/A
The proposal aligns roads and pathways to work around trees and other vegetation, preserving their ecological values.	Yes
Assessment Supporting Details: The internal driveway is aligned away from native vegetation and the natural soak to the south west of the property.	
The proposal establishes requirements for the construction of building(s) to satisfy the requirements corresponding to higher BAL ratings to ensure a reduced vegetation separation distance requirement.	No
Assessment Supporting Details: The Shire of Nannup requires all caravan and camp sites to achieve a BAL-29 rating. Within the proposed development there will be some sites that can achieve a BAL-12.5 or BAL-19 rating.	

2.3 Vegetation Management Plans with Implications for the BMP

EXPLANATORY INFORMATION

This section identifies the area(s) of land (supporting vegetation), within or near the subject site (i.e. onsite or offsite) to which one or more of the following descriptions applies:

1. Area(s) subject to a **LANDSCAPE PLAN THAT RESULTS IN RELEVANT ELEMENTS AT RISK BEING EXPOSED TO A LOW BUSHFIRE THREAT LEVEL** from existing or planned area(s) of vegetation and establishes the following management actions:
 - (a) To apply landscaping design (including the modification and/or establishment of plants/shrubs/trees), that will enable the area(s) to be excluded from classification under AS 3959 BAL determination methodology;
 - (b) To actively manage the area(s) to maintain the low bushfire threat level in perpetuity. Thereby ensuring the applicable bushfire protection measures, applied in accordance with the BMP, remain effective;
 - (c) To achieve and maintain the low threat state through using a combination of mechanisms including:
 - (i) Minimising vegetation fuel loads through design and ongoing management;
 - (ii) Using low flammability and/or higher moisture content species;
 - (iii) Incorporating non-vegetated elements; and
 - (d) To identify the entity responsible for ensuring the landscape plan is complied with in perpetuity and when required, will contain written confirmation of their acceptance of the responsibility.
2. Area(s) subject to a **LANDSCAPE PLAN THAT RESULTS IN RELEVANT ELEMENTS AT RISK BEING EXPOSED TO A REDUCED BUSHFIRE THREAT LEVEL** from existing or planned area(s) of vegetation and establishes the following management actions:
 - (a) To apply landscaping design involving the removal and/or modification of existing vegetation that will enable the area(s) to be classified as a lower threat class under AS 3959:2018 BAL determination methodology;
 - (b) To actively manage the area(s) to maintain the reduced bushfire threat level in perpetuity. Thereby ensuring the applicable bushfire protection measures, applied in accordance with the BMP, remain effective;
 - (c) To identify the entity responsible for ensuring the landscape plan is complied with in perpetuity and when required, will contain written confirmation of their acceptance of the responsibility.
3. Area(s) subject to a **REVEGETATION PLAN THAT MAY RESULT IN RELEVANT ELEMENTS AT RISK BEING EXPOSED TO AN ADDITIONAL BUSHFIRE HAZARD AND/OR AN INCREASED BUSHFIRE THREAT LEVEL** from an existing area(s) of vegetation and establishes the following information:
 - (a) The location of the areas to be revegetated (as distinct from natural regeneration which is accounted for in the vegetation classification under AS 3959 BAL determination methodology); and
 - (b) A description of the planned design regarding density and species of plants/shrubs/trees to inform the bushfire consultant's classification of the vegetation under AS 3959:2018 BAL determination methodology.

2.3.1 Landscape Management Plan – Reduced Bushfire Threat Level

PLANNED LANDSCAPING – REDUCED BUSHFIRE THREAT LEVEL				
Assessment Details				Relevant
The area of land that is to be subject to a Landscape Management Plan is within the subject site (onsite).				Yes
The area of land that is to be subject to a Landscape Management Plan is outside the subject site (offsite).				No
The landscape plan is recommended as a bushfire protection measure by the bushfire consultant for the reasons identified in the 'Additional Bushfire Protection Measures of this BMP.				Yes
The area of land subject to the landscape management plan will have its classification under AS 3959 (as amended) BAL determination methodology changed to a lower threat classification than that which currently applies.				No
Responsibility for Ongoing Management of the Landscaped Area				No
Landscaped Area	Persons / Agency		A Requirement Exists for Written Authority and/or Agreement to Remove/Modify/Manage Vegetation	
Onsite	Landowner	Yes	N/A	
	Local Government	No	N/A	
An approved landscape management plan and/or written confirmation exists and is provided to demonstrate that agencies responsible for the ongoing management understand and support the vegetation classification assigned to the subject area and its resulting ongoing management implications on the agency.				Yes
A written authority and management agreement exists and is provided to demonstrate an arrangement between adjoining landowners as to the responsibility for establishment and ongoing management of the defined area of land subject to a Landscape Management Plan.				No
Identification of the Area(s) of Land Subject to a Landscape Management Plan				
Ref: Fig 3.1.1. Area 1 Forest to Area 2 Woodland and an area of Eucalypts adjacent to the development site on the western edge.				
Location of the Landscape Management Plan / Authority / Confirmation / Agreement for Reference				
Ref: B4: Landscape Management Plan. Page 85.				
Implications for the BMP				
Fig: 3.1.1 details the post development vegetation modification. Some minor management of vegetation will enable a portion of Area 2 Forest to be re-classified as Woodland. In addition to addressing bushfire mitigation, the management of this area ensures the removal of declared weeds. To the west of the development site is an area of Eucalypts that are a windbreak. This area requires some management to become Excluded vegetation (understory removal of branches 2m up the trunk and management of fallen branches, and grass height to be less than 10cms). The integrity of the vegetation remains.				

3 THE BUSHFIRE HAZARD – POTENTIAL IMPACT - LANDSCAPE AND VEGETATION DATA

3.1 Bushfire Attack Level (BAL) Assessment Summary (Contour Map Format)

EXPLANATORY INFORMATION

BUSHFIRE ATTACK LEVELS (BAL) - UNDERSTANDING THE RESULTS

The potential transfer (flux/flow) of radiant heat from the bushfire to a receiving object is measured in kW/m². The AS 3959:2018 BAL determination methodology establishes the ranges of radiant heat flux that correspond to each bushfire attack level. These are identified as BAL-LOW, BAL-12.5, BAL-19, BAL-29, BAL-40 and BAL-FZ.

The bushfire performance requirements for certain classes of buildings are established by the Building Code of Australia (Vol. 1 & 2 of the NCC). The BAL will establish the bushfire resistant construction requirements that are to apply in accordance with AS 3959:2018 - *Construction of buildings in bushfire prone areas* and the NASH Standard – *Steel framed construction in bushfire areas (NS 300 2021)*, whose solutions are deemed to satisfy the NCC bushfire performance requirements.

DETERMINED BAL RATINGS

A BAL Certificate can be issued for a determined BAL. A BAL can only be classed as 'determined' for an existing or future building/structure when:

1. It's final design and position on the lot are known and the stated separation distance from classified bushfire prone vegetation exists and can justifiably be expected to remain in perpetuity; or
2. It will always remain subject to the same BAL regardless of its design or position on the lot after accounting for any regulatory or enforceable building setbacks from lot boundaries as relevant and necessary (e.g., R-codes, restrictive covenants, defined building envelopes) or the retention of any existing classified vegetation either onsite or offsite.

If the BMP derives determined BAL(s), the BAL Certificate(s) required for submission with building applications can be provided, using the BMP as the assessment evidence.

INDICATIVE BAL RATINGS

A BAL Certificate cannot be issued for an indicative BAL. A BAL will be classed as 'indicative' for an existing or future building/structure when the required conditions to derive a determined BAL are not met.

This class of BAL rating indicates what BAL(s) could be achieved and the conditions that need to be met are stated.

Converting the indicative BAL into a determined BAL is conditional upon the currently unconfirmed variable(s) being confirmed by a subsequent assessment and evidential documentation. These variables will include the future building(s) location(s) being established (or changed) and/or classified vegetation being modified or removed to establish the necessary vegetation separation distance. This may also be dependent on receiving approval from the relevant authority for that modification/removal.

BAL RATING APPLICATION – PLANNING APPROVAL VERSUS BUILDING APPROVAL

1. **Planning Approval:** SPP.3.7 establishes that where BAL- LOW to BAL-29 will apply to relevant future construction (or existing structures for proposed uses), the proposed development may be considered for approval (dependent on the other requirements of the relevant policy measures being met). That is, BAL40 or BAL-FZ are not acceptable on planning grounds (except for certain limited exceptions).

Because planning is looking forward at what can be achieved, as well as looking at what may currently exist, both determined and indicative BAL ratings are acceptable assessment outcomes on which planning decisions can be made (including conditional approvals).

2. **Building Approval:** The Building Code of Australia (Vol. 1 & 2 of the NCC) establishes that relevant buildings in bushfire prone areas must be constructed to the bushfire resistant requirements corresponding to the BAL rating that is to apply to that building. Consequently, a determined BAL rating and the BAL Certificate is required for a building permit to be issued - an indicative BAL rating is not acceptable.

INTERPRETATION OF THE BAL CONTOUR MAP

The BAL contour map is a diagrammatic representation of the results of the bushfire attack level assessment.

The map presents different coloured contours extending out from the areas of classified vegetation. Each contour represents a set range of radiant heat flux that potentially will transfer to an exposed element (building, person or other defined element), when it is located within that contour.

Each of the set ranges of radiant heat flux corresponds to a different BAL rating as defined by the AS 3959:2018 BAL determination methodology.

The width of each shaded BAL contour will vary dependant on both the BAL rating and the relevant parameters (calculation inputs) for the subject site. Their width represents the minimum and maximum vegetation separation distances that correspond to each BAL rating (refer to the relevant table below for these distances).

The areas of classified vegetation to be considered in developing the BAL contours, are those that will remain at the intended end state of the subject development once earthworks, clearing and/or landscaping and re-vegetation have been completed. Variations to this statement that may apply include:

- Both pre and post development BAL contour maps are produced; and/or
- Each stage of a development is assessed independently.

CAUTION: Be aware that you should not use a BAL contour map to determine a BAL rating for a building application and future bushfire construction requirements – except when the conditions of the lot and its surrounds are such that a building located anywhere on the lot would not be subject to a different rating or the contour map has been developed for a single lot and the building location is known. (Refer to Appendix B1 for additional information.

Otherwise, determining a BAL rating will require an assessment of the specific lot, the known building design and location, the existing bushfire prone vegetation surrounding both and potentially other site specific variables.

3.1.1 BAL Determination Methodology and Location of Data and Results

LOCATION OF DATA & RESULTS					
BAL Determination Methodology		Location of the Site Assessment Data			Location of the Results
AS 3959:2018	Applied to Assessment	Classified Vegetation and Topography Map(s)	Calculation Input Variables		Assessed Bushfire Attack Levels and/or Radiant Heat Levels
			Summary Data	Detailed Data with Explanatory and Supporting Information	
Method 1 (Simplified)	Yes	Figure 3.1	Table 3.2	Appendix A1	Table 3.1 Table 3.3 / BAL Contour Map
Method 2 (Detailed)	No	-	-	-	

3.1.2 BAL Ratings Derived from the Contour Map

Table 3.1: Indicative and determined BAL(s) for future buildings/structures, caravan and camp sites on the proposed lot.

BUSHFIRE ATTACK LEVEL FOR FUTURE BUILDINGS / CARAVAN & CAMP SITES ON STATED LOT ¹		
Lot No.	Future Buildings / Structure	
	Indicative BAL ²	Determined BAL ²
Caravan and camp sites on Lot 4027	BAL-12.5 – BAL-29	Not Determined
¹ The assessment data used to derive the BAL ratings is sourced from Table 3.1 and Figure 3.2 'BAL Contour Map'. ² Refer to the start of Section 3 for an explanation of indicative versus determined BAL ratings.		

3.1.3 Site Assessment Data Applied to Construction of the BAL Contour Map(s)

RELEVANT CLASSIFIED VEGETATION	
Identification of Classified Vegetation that is Relevant to the Production of the BAL Contour Map(s)	Relevant Vegetation Map
The relevant vegetation will be all areas of classified vegetation that exist at the time of the site assessment – both within the subject site (onsite) and external to the subject site (offsite).	Figure No. 3.1
The relevant vegetation for the pre-development BAL contour map will be all areas of classified vegetation that exist at the time of the site assessment – both within the subject site (onsite) and external to the subject site (offsite).	Figure No. 3.1.1
The relevant vegetation for the post-development BAL contour map will be any area of classified vegetation - both within the subject site (onsite) and external to the subject site (offsite) - that will remain at the intended end state of the subject development once earthworks, any clearing and/or landscaping and re-vegetation have been completed.	Figure No. 3.2
Supporting Assessment Details: None required	

Table 3.2: Calculation inputs applied to deriving the vegetation separation distances corresponding to different levels of potential radiant heat transfer.

DATA APPLIED TO CALCULATE THE SITE SPECIFIC VEGETATION SEPARATION DISTANCES CORRESPONDING TO POTENTIAL RADIANT HEAT TRANSFER LEVELS ¹												
Applied BAL Determination Method		METHOD 1 - SIMPLIFIED PROCEDURE (AS 3959:2018 CLAUSE 2.2)										
The Calculation Input Variables - Corresponding to the Applied BAL Determination Method ²												
Method 1		Method 1			Method 2							
Vegetation Classification		FDI	Effective Slope		Site Slope	FFDI or GFDI	Flame Temp.	Elevation of Receiver	Flame Width	Fireline Intensity	Flame Length	Modified View Factor
			Applied Range	Measured								
Area	Class		degree range	degrees	degrees		K	metres	metres	kW/m	metres	% Reduction
1	(A) Forest	80	Upslope or flat 0	flat 0	-	-	-	-	-	-	-	-
2	(A) Forest	80	Upslope or flat 0	flat 0	-	-	-	-	-	-	-	-
3	(D) Scrub	80	Upslope or flat 0	flat 0	-	-	-	-	-	-	-	-
4	(D) Scrub	80	Upslope or flat 0	flat 0	-	-	-	-	-	-	-	-
5	(G) Grassland	80	Upslope or flat 0	flat 0	-	-	-	-	-	-	-	-
6	Excluded cl 2.2.3.2(e & f)	N/A	N/A	-	-	-	-	-	-	-	-	-
Note 1: The values used to indicate levels of potential radiant heat transfer (from fire in bushfire prone vegetation to exposed elements at risk), will be stated in subsequent tables as either as a bushfire attack level (BAL) and/or as kilowatts per square metre (kW/m2), as relevant to the application of the value and the type and use of the element at risk. Note 2: All data and information supporting the determination of the classifications and values stated in this table is presented in Appendix A. Where the values are stated as 'default' these are either the values stated in AS 3959:2018, Table B1 or the values calculated as intermediate or final outputs through application of the equations of the AS 3959:2018 BAL determination methodology. They are not values derived by the assessor.												

Table 3.3: Vegetation separation distances corresponding to the stated levels of potential radiant heat transfer.

THE CALCULATED (SITE SPECIFIC) VEGETATION SEPARATION DISTANCES CORRESPONDING TO THE STATED LEVEL OF POTENTIAL RADIANT HEAT TRANSFER (METRES) ¹									
Vegetation Classification		Maximum Radiant Heat Transfer (Flux)						10 kW/m ²	2 kW/m ²
		>40 kW/m ²	40 kW/m ²	29 kW/m ²	19 kW/m ²	12.5 kW/m ²	N/A ²		
		Bushfire Attack Levels							
Area	Class	BAL-FZ	BAL-40	BAL-29	BAL-19	BAL12.5	BAL-LOW		
1	(A) Forest	<16	16-<21	21-<31	31-<42	42-<100	>100	-	-
2	(A) Forest	<16	16-<21	21-<31	31-<42	42-<100	>100	-	-
3	(D) Scrub	<10	10-<13	13-<19	19-<27	27-<100	>100	-	-
4	(D) Scrub	<10	10-<13	13-<19	19-<27	27-<100	>100	-	-
5	(G) Grassland	<6	6-<8	8-<12	12-<17	17-<50	>50		
6	Excluded cl 2.2.3.2(e & f)	-	-	-	-	-	-	-	-
Note 1: The calculated results are illustrated in Figure 3.3 as a BAL Contour Map and/ or additional defining lines as necessary. All applied calculation input variables are presented in Table 3.2. A copy of the radiant heat calculator output for each area of classified vegetation is presented in Appendix A3.									
Note 2: The BAL-LOW rating does not represent a maximum level of radiant heat transfer. The rating is applied when the separation distance is at least 100m from all classified vegetation except Grassland, for which 50m applies.									

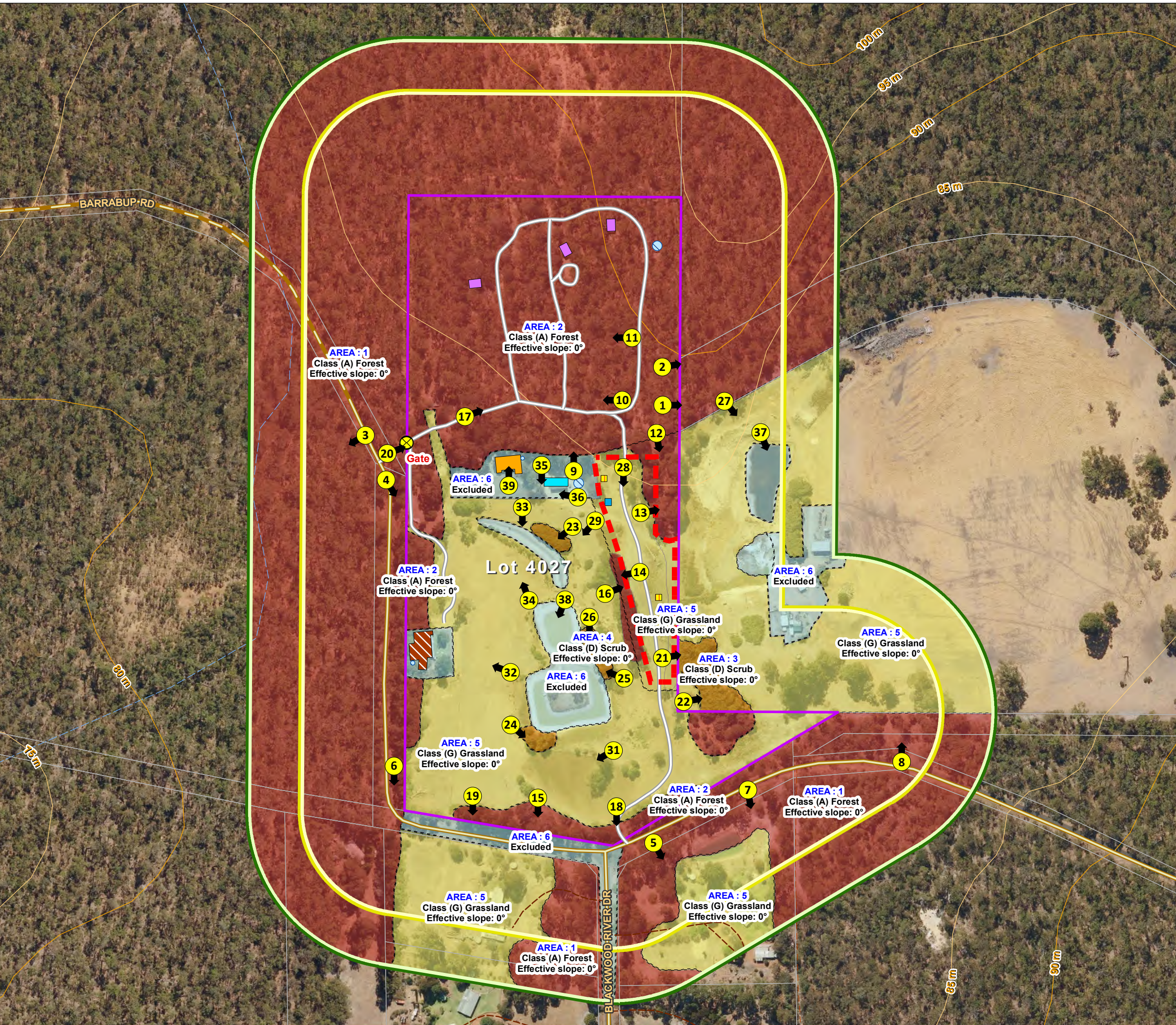


Figure 3.1
Classified Vegetation & Topography
Lot 4027 on Plan 137676, Area : 16.2140 sq m
354 Barrabup Road,
NANNUP 6275
SHIRE OF NANNUP

----- **LEGEND** -----

- Subject Site
- Other Lots
- Photo & Direction
- Gate
- Residence / Office
- Function Centre
- Cottages
- Water Tank
- Shed
- Ablution Block
- Camp Kitchen
- Caravan Area
- Driveway

150m Vegetation Assessment Area
150m from Subject Site

100m Vegetation Assessment Area
100m from Subject Site

Classified Vegetation

- Class (A) Forest
- Class (D) Scrub
- Class (G) Grassland
- Excluded 2.2.3.2 {f}

0 50 100 150 200
Metres

----- **LOCALITY** -----

Aerial Imagery : Landgate/SLIP
Image Date : April 2024

Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Mercator Units: Metre
Map compiled by: Ian Ross 3/06/2025
Map updated by: Ian 3/06/2025
A3 Scale 1:3,500

Disclaimer and Limitation: This map has been prepared for bushfire management planning purposes only. All depicted areas, contours and any dimensions shown are subject to survey. Bushfire Prone Planning does not guarantee that this map is without flaw of any kind and disclaims all liability for any errors, loss or other consequence arising from relying on any information depicted.
Map Document Path / Name: K:\Projects\Jobs 2024\240427 - Loose Goose Chalets Nannup (BAB STA)\240427 - SV&BAB - Aug 2024\Mapping\MXD\240427_Fig3-1_VEG_Loose Goose.mxd

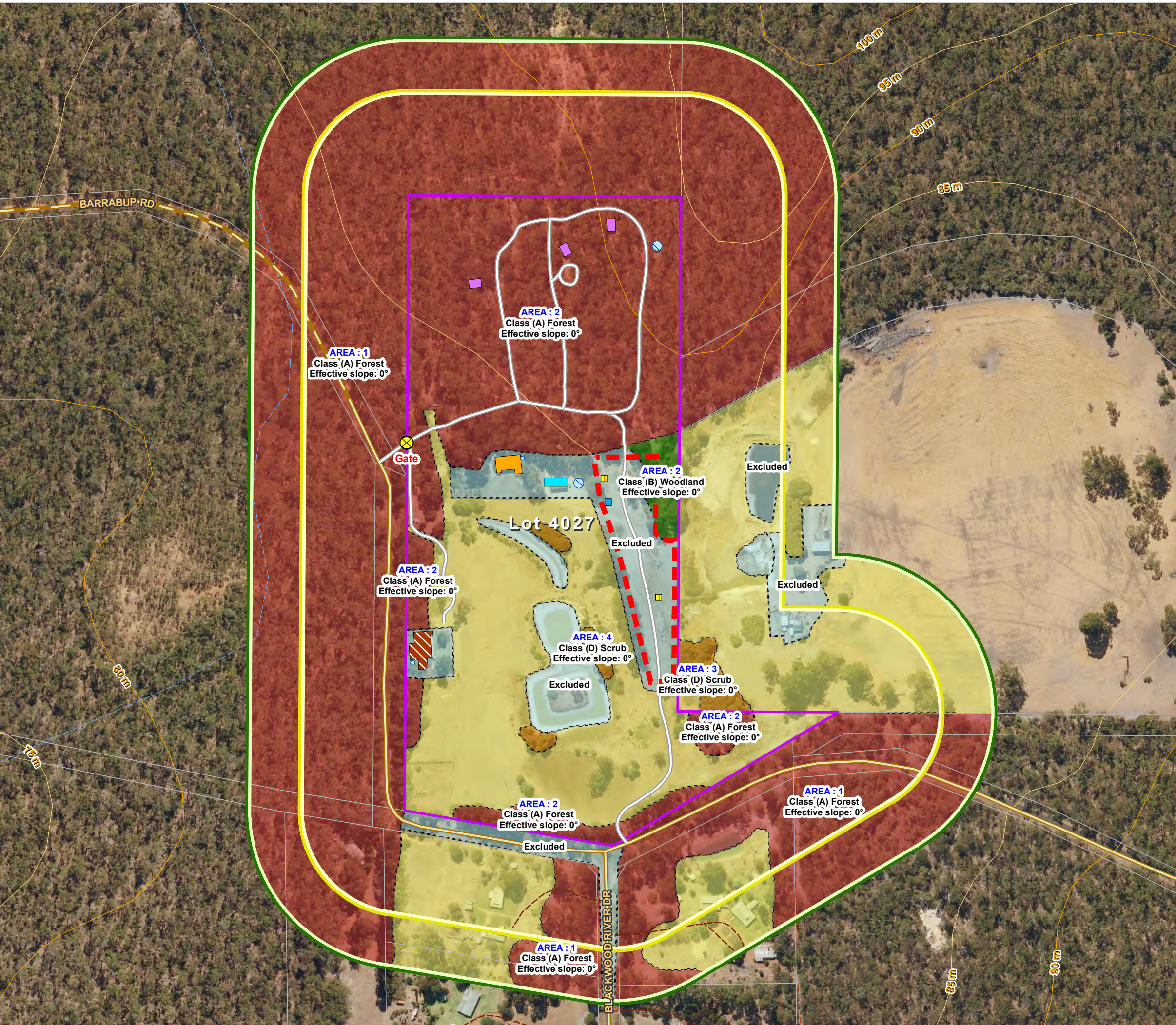


Figure 3.1.1
Classified Vegetation & Topography (Post Development)

Lot 4027 on Plan 137676, Area : 16.2140 sq m
354 Barrabup Road,
NANNUP 6275
SHIRE OF NANNUP

- **LEGEND** -----
- Subject Site
 - Other Lots
 - Gate
 - Residence / Office
 - Function Centre
 - Cottages
 - Water Tank
 - Shed
 - Ablution Block
 - Camp Kitchen
 - Caravan Area
 - Driveway

150m Vegetation Assessment Area

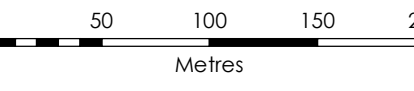
150m from Subject Site

100m Vegetation Assessment Area

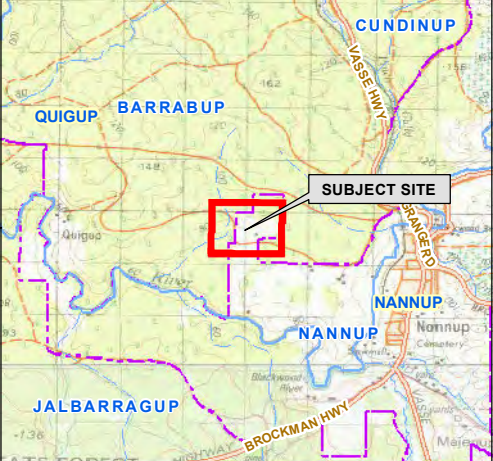
100m from Subject Site

Classified Vegetation

- Class (A) Forest
- Class (B) Woodland
- Class (D) Scrub
- Class (G) Grassland
- Excluded 2.2.3.2 {f}



----- **LOCALITY** -----

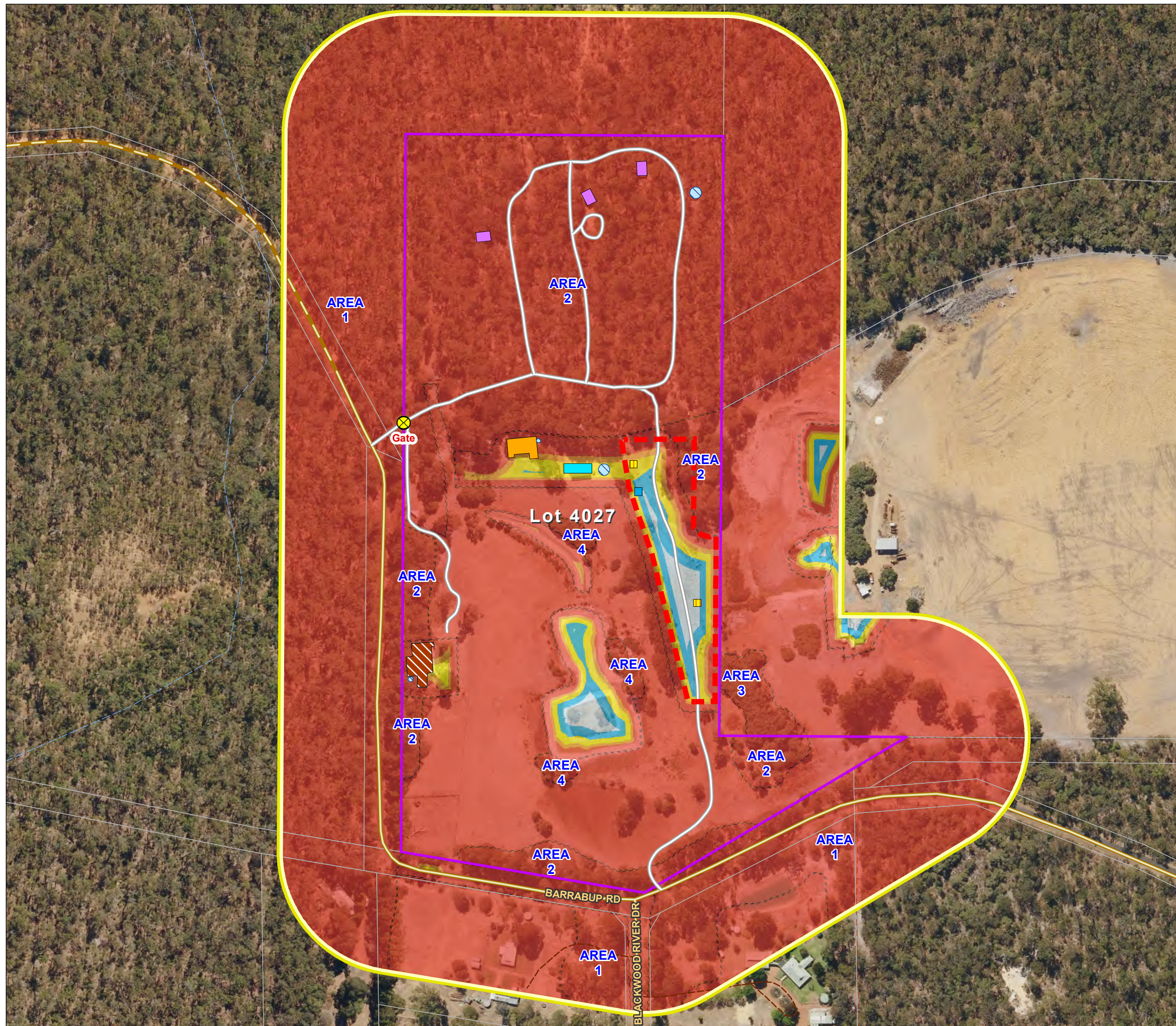


Aerial Imagery : Landgate/SLIP
Image Date : April 2024

Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Mercator Units: Metre
Map compiled by: Ian Ross 3/06/2025
Map updated by: Ian 3/06/2025
A3 Scale 1:3,500

Figure 3.2
**BAL Contour Map
 (Post Development)**

Lot 4027 on Plan 137676, Area : 16.2140 sq m
 354 Barrabup Road,
 NANNUP 6275
SHIRE OF NANNUP



----- **LEGEND** -----

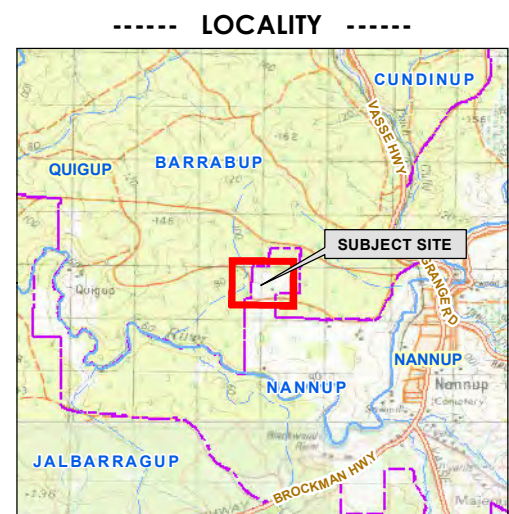
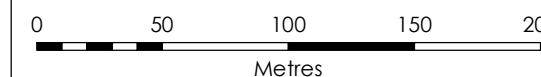
- Subject Site
- Other Lots
- ⊗ Gate
- Residence / Office
- Function Centre
- Cottages
- Water Tank
- Shed
- Ablution Block
- Camp Kitchen
- Caravan Area
- Driveway

100m Vegetation Assessment Area

- 100m from Subject Site

Indicative Bushfire Attack Levels

- BAL FZ
- BAL 40
- BAL 29
- BAL 19
- BAL 12.5
- Classified Vegetation Boundary



Aerial Imagery : Landgate/SLIP
 Image Date : April 2024

Coordinate System: GDA 1994 MGA Zone 50
 Projection: Universal Transverse Mercator Units: Metre
 Map compiled by: Ian Ross 3/06/2025
 Map updated by: Ian 3/06/2025
 A3 Scale 1:3,000

4 IDENTIFICATION OF BUSHFIRE HAZARD ISSUES

Whilst the Broader Landscape Assessment is not applicable to this development application, consideration of bushfire hazards and the impact of environmental considerations is discussed below.

The Jarrahdale State Forest borders the development site on two boundaries. Private property Class A Forest borders the north eastern boundary. The balance of offsite vegetation is managed grassland from grazing stock and managed gardens as part of a residential rural subdivision.

The area is predominantly flat, with small slopes of 0-5 degrees along the nearby Blackwood River.

There are no identified bushfire hazards. There is no substantial chemical storage or fuel tanks on the property.

Mitigation works along Barrabup Road have recently been undertaken, reducing the fuel load along the road verges.

5 ASSESSMENT AGAINST THE BUSHFIRE PROTECTION CRITERIA (BPC)

EXPLANATORY INFORMATION

The bushfire protection criteria (BPC) consist of five elements each focussed on a primary set of bushfire protection measures considered by the Department of Planning, Lands and Heritage / the Western Australian Planning Commission, as the most important to be considered in land use planning.

[Note: the additional primary bushfire protection measure of bushfire construction requirements that are to apply to certain classes of habitable buildings in WA (corresponding to their assessed Bushfire Attack Level) - is implemented through the process of applying the Building Code of Australia (Volumes 1 and 2 of the National Construction Code) in accordance with WA building legislation – not through any planning legislation].

The elements of the BPC are Location (applicable to strategic and structure plan/subdivision planning stages), and Siting and Design, Vehicular Access and Water Supply (applicable to all planning stages and land uses).

The BPC establish a set of acceptable solutions that are considered a 'deemed to comply' pathway to satisfying intent, objectives and outcomes of State Planning Policy 3.7 Bushfire (SPP 3.7).

When all applicable acceptable solutions cannot be met, the use of the alternative pathway of an outcomes-based approach is available. In brief, this involves the development of a merit based case, specific to the planning proposal, that potentially involves the use of innovative, alternative and or additional bushfire protection measures and addressing the level of risks associated with a bushfire event. This is then presented to the decision-maker for their discretionary decision.

The requirement to prepare a Bushfire Emergency Plan (BEP) for vulnerable land uses is an additional bushfire protection measure established by SPP 3.7. This is to be produced as a separate standalone operational document. However, some requirements identified in the BEP may necessarily incorporated into this BMP and the responsibilities it creates.

5.1 Local Government Variations to Apply

EXPLANATORY INFORMATION

1. Local governments may add to or modify the acceptable solutions contained within the Guidelines, through regional or local variations that form part of a local planning strategy and/or local planning scheme to recognise special local or regional circumstances that reinforce the SPP 3.7 objectives and outcomes (via a scheme amendment or special control area).

This could include acceptable solutions that address topography, vegetation or climate to the satisfaction of the Western Australian Planning Commission (WAPC) that the modifications comply with the corresponding SPP 3.7 objectives and outcomes. (Planning for Bushfire Guidelines, s. 3.4, 2024).

2. Under the relevant state legislation (LPS Regulations 2015), SPP 3.7 does not apply to hosted or unhosted short-term rental accommodation. However, the local government under its Local Planning framework (i.e. Strategy / Scheme and Policy as applicable), may require that certain bushfire protection measures or variations to the measures (the bushfire protection criteria), established by SPP 3.7 and the Guidelines, are to be applied.

Endorsed regional or local variations to the acceptable solutions apply to the assessments against the Bushfire Protection Criteria for the planning proposal?

No

The proposed land use for hosted or unhosted short-term rental accommodation, and the local government requires certain bushfire protection measures, contained within the BPC, to be applied, that under the LPS Regulations 2015, would otherwise not be required?

No

5.2 Assessment Summary

HOW THE REQUIRED BUSHFIRE PLANNING OUTCOMES OF SPP 3.7 ARE ACHIEVED FOR THE PLANNING PROPOSAL		
DEVELOPMENT – VULNERABLE TOURISM LAND USES AND DAY USES		
The Bushfire Protection Criteria (BPC) Elements and Acceptable Solutions	Compliance Pathway Applied and Assessment Outcome	
	Deemed to Comply	Outcomes-Based Approach
	Requires Compliance with All Applicable Acceptable Solutions	Expert Opinion Identifies Achieving the Required SPP 3.7 Outcomes can be Demonstrated ¹
E2: SITING AND DESIGN	Fully Compliant	Not Required
A2.1a Siting and design	Fully Compliant	
A2.1b Siting in an area with a radiant heat impact exceeding 29 kW/m² (BAL-40 or BAL-FZ)	Not Applicable	
A2.2 Asset Protection Zone (APZ)	Fully Compliant	
A2.3 Clearing of native vegetation	Fully Compliant	
A2.4 Landscape management plan	Fully Compliant	
A2.5 Onsite shelter (safer building) - schools	Not Applicable	
E3: VEHICULAR ACCESS	Partly Compliant	Achieving the required element outcome is demonstrated using a combination of acceptable solutions and assessment of factors impacting the outcome.
A3.1 Public roads	Fully Compliant	
A3.2a Access routes	Not Compliant	
A3.2b Access routes for a day use with no overnight accommodation	Not Applicable	
A3.3a No-through roads	Not Compliant	
A3.3b No-through roads technical requirements	Fully Compliant	
A3.4 Emergency access way	Not Applicable	
A3.5 Onsite shelter	Not Compliant	
A3.6 Fire service access route	Not Applicable	
A3.7 Internal vehicular access & private driveways	Fully Compliant	
A3.8 Signage	Fully Compliant	
E4: WATER SUPPLY	Fully Compliant	Not Required
A4.1 Water supply	Fully Compliant	
Note 1: Assessment details addressing the criteria established by SPP 3.7 cl. 7.5, are provided in the following section when this compliance pathway is applied.		

5.3 Development – Vulnerable Tourism Land Uses and Day Uses – BPC 8 Assessment

5.3.1 Element 2: Siting and Design

ELEMENT 2: SITING AND DESIGN (DEVELOPMENT –VULNERABLE TOURISM LAND USES AND DAY USES)			
All details of acceptable solution requirements are established in the Planning for Bushfire Guidelines (Guidelines) – WA Department of Planning, Lands and Heritage (DPLH, as amended). When relevant, the 'Bushfire Management Plan Guidance for the Dampier Peninsula' (DPLH, 2021 Rev B), is also referenced.			
O2	State Planning Policy 3.7 Bushfire - Outcomes to be Achieved		
	SPP 3.7, 6.2: 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.		
E2	Statement for Compliance with Element E1 – The Deemed to Comply Pathway		
	The planning proposal is fully compliant with all applicable acceptable solutions and therefore achieves the required outcomes of this element.		
ACCEPTABLE SOLUTIONS - ASSESSMENT STATEMENTS			
Check Box Legend: ☒ Relevant & met ☒ Relevant & not met ☐ Not relevant			
A2.1a Siting and design		Applicable:	Compliant:
☒ ☐ ☐ BPC 8 establishes A2.1a is applicable to the planning stage and land use. However, A2.1b provides an additional acceptable solution (dealing with the same protection measure), that establishes a higher level of radiant heat impact that will be considered for planning approval, if it can be satisfactorily demonstrated that the allowable constraints apply to the subject development site. For the subject planning proposal, A2.1a is not applicable as A2.1b can be satisfactorily applied.		Yes	Yes
☒ ☐ ☐ Every habitable building achieves a radiant heat impact not exceeding 29 kW/m ² (BAL-29).			
Assessment Supporting Details: The BAL Contour map demonstrates that a BAL- 29 radiant heat impact or lower can be achieved for caravan and camp sites.			
A2.1b Siting in an area with a radiant heat impact exceeding 29 kW/m² (BAL-40 or BAL-FZ)		Applicable:	Compliant:
☐ ☐ ☐ BPC 8 establishes A2.1b is applicable to the planning stage and land use. However, A2.1a provides an additional acceptable solution that addresses the same protection measure of siting. For the subject planning proposal, A2.1b is not applicable as A2.1a can be complied with.		No	-
☐ ☐ ☐ The habitable building(s) or structure(s) is sited with a radiant heat impact exceeding 29 kW/m ² (BAL-40 or BAL-FZ) and is unable to establish an APZ in accordance with A2.2. However, meeting all of the following established requirements allows consideration for approval.			
☐ ☐ ☐ There are no bushfire construction standards required under the BCA; and			
☐ ☐ ☐ There are demonstrated site characteristics and/or environmental values that prevent the achievement of a radiant heat impact not exceeding 29 kW/m ² (BAL-29); and			

- ☐ ☐ ☒ It is acknowledged within the bushfire management plan that it is understood that in the event of a bushfire it is possible the building or structure will be damaged or destroyed; and
- ☐ ☐ ☒ The vegetation immediately surrounding the building(s) or structure(s) can and will be managed as defendable space in accordance with Appendix B.2, Table 9 – APZ technical requirements.

Assessment Supporting Details: Not applicable

A2.2 Asset Protection Zone (APZ)

Applicable:

Yes

Compliant:

Yes

EXPLANATORY INFORMATION

Refer to Appendix B1 for an explanation of what an APZ is and its purpose and the factors determining the dimensions of the 'Planning BAL-29' APZ, the 'BAL Rating' APZ, the 'Local Government' APZ and the 'Required' APZ which is to be established and maintained by the eventual landowner.

The following assessment of the acceptable solution is applying the dimensions of the 'Planning BAL-29' APZ to provide evidence of the planning proposals ability, or not, to achieve the minimum vegetation separation distances considered acceptable by the planning authority.

The 'Planning BAL-29' APZ is not necessarily the size of the APZ that must be physically implemented and maintained by the eventual landowner surrounding a habitable building.

Where a habitable building(s) cannot be wholly within an area with a radiant heat impact not exceeding 29 kW/m² (BAL-29) in its pre-development state, an indicative APZ is to be provided and meet the following requirements for width, location and management:

- ☒ ☐ ☐ **APZ Width:** The APZ, when measured from the development site (or any external wall or supporting post or column), is 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.
- ☒ ☐ ☐ **APZ Location – Option 1:** The indicative 'Planning BAL-29' APZ can be contained solely within the boundaries of the lot.
- ☐ ☐ ☒ **APZ Location – Option 2:** The indicative 'Planning BAL-29' APZ cannot be contained solely within the boundaries of the lot. However, the relevant vegetation on the adjoining land / lot(s) is, and will continue to be, on an ongoing basis in perpetuity, low threat as per:
- Clause 2.2.3.2 of AS 3959 (including non-vegetated land such as a sealed or unsealed road, or a water body); or
 - The requirements of the Guidelines Appendix B.2, Table 9 – APZ technical requirements; or
 - The alternative standard in the local planning scheme (when it exists).
- ☒ ☐ ☐ **APZ Management:** The APZ can and will be managed in accordance with the requirements of Guidelines, Appendix B.2, Table 9 – APZ technical requirements, or the alternative standard in the gazetted local planning scheme (when it exists).

Assessment Supporting Details: A BAL-29 APZ can be achieved around the caravan and camping area. This will be maintained in perpetuity.

A2.3 Clearing of native vegetation

Applicable:

Yes

Compliant:

Yes

- ☒ ☐ ☐ The development avoids, or where unavoidable, minimises the clearing of native vegetation.

Assessment Supporting Details: Under-pruning of Marri trees is required to the north of the camp area. To achieve Class B Woodland an individual Marri tree may need to be removed. This will be at the discretion of the landowner, with the goal to achieve a maximum 30% canopy cover.

A2.4 Landscape management plan

Applicable:

Yes

Compliant:

Yes

- ☒ ☐ ☐ A landscape management plan has been prepared to identify ongoing onsite vegetation management.

Assessment Supporting Details: The Landscape Management Plan outlines onsite vegetation management for the caravan and camping area and the immediate adjoining classified vegetation that impacts the BAL-29 APZ.

A2.5 Onsite shelter (if required)

Applicable:

No

Compliant:

-

- ☐ ☐ ☒ An onsite shelter is proposed. It will comply with A3.5 Onsite shelter and can and will meet all the relevant following established requirements.
- ☐ ☐ ☒ An onsite shelter building(s) is proposed for which there is sufficient separation distance from the bushfire prone vegetation to avoid exposure to a radiant heat flux exceeding 10 kW/m² (applying an assumed flame temperature of 1200 K).
- ☐ ☐ ☒ The building(s) identified as suitable for onsite shelter will be designed in accordance with Building Code of Australia and the ABCB Design and Construction of Community Bushfire Refuges Handbook.
- ☐ ☐ ☒ An open space area is proposed to function as an onsite shelter. There is sufficient separation distance between the open space area and the bushfire prone vegetation to avoid exposure to a radiant heat flux exceeding 2 kW/m² (applying an assumed flame temperature of 1200 K).
- ☐ ☐ ☒ Pedestrian paths to any onsite shelter(s) can and will be provided and clearly signposted.

Assessment Supporting Details: Not applicable

5.3.2 Element 3: Vehicular Access

ELEMENT 3: VEHICULAR ACCESS (DEVELOPMENT –VULNERABLE TOURISM LAND USES AND DAY USES)			
All details of acceptable solution requirements are established in the Planning for Bushfire Guidelines (Guidelines) – WA Department of Planning, Lands and Heritage (DPLH, as amended). When relevant, the 'Bushfire Management Plan Guidance for the Dampier Peninsula' (DPLH, 2021 Rev B), is also referenced. The technical construction requirements for access types and components are established in the Guidelines Appendix B.3, Table 10 (certain information is copied and presented in Appendix C of this BMP). The local government will advise the proponent where different requirements are to apply and when any additional specifications such as those for signage and gates are to apply. These are included in the appendix if requested by the local government.			
O3	State Planning Policy 3.7 Bushfire - Outcomes to be Achieved		
	SPP 3.7, 6.3: 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.		
E3	Statement for Compliance with Element E1 – The Deemed to Comply Pathway		
	The planning proposal is fully compliant with all applicable acceptable solutions and therefore achieves the required outcomes of this element.		
	Alternative Pathway Applied to Achieve SPP 3.7 Outcomes		
	An outcomes-based approach is applied (refer to Section 5.4) to demonstrate (to the decision maker) that the relevant risks can be appropriately managed and/or mitigated to a tolerable or acceptable level and the required outcomes are achieved.		
ACCEPTABLE SOLUTIONS - ASSESSMENT STATEMENTS			
Check Box Legend: ☒ Relevant & met ☒ Relevant & not met ☐ Not relevant			
A3.1 Public roads		Applicable:	Yes
☒ ☐ ☐ Public roads meet the technical requirements for minimum vertical clearance (4.5 metres) and minimum weight capacity (15 tonnes - includes bridges, culverts).		Compliant:	Yes
☒ ☐ ☐ Public roads meet the technical requirement <u>recommended</u> in the Guidelines in Appendix B3, B3.1 for a minimum horizontal clearance of 6 metres.			
☒ ☐ ☐ Public road technical requirements for minimum horizontal clearance, gradients and curves should be in accordance with the class of road as specified in the Public Works Engineering Australasia (IPWEA) subdivision guidelines, Liveable Neighbourhoods, Austroads Standards, any applicable or relevant Main Roads standards, supplements, policies and any applicable or relevant local government standards or policies.			
The assessment conducted for the bushfire management plan indicates that it is likely that the proposed development can and will comply with the requirements. The applicable class(s) of road and their technical requirements have been confirmed with the relevant local government/Main Roads WA. These can and will be complied with.			

Assessment Supporting Details: Barrabup Road and Blackwood River Drive are both public roads and in circuit provide travel options to the north east. These roads meet the technical requirements of the Guidelines and are traversable in a 2WD in all weather conditions.

A3.2a Access routes	Applicable:	Yes	Compliant:	No
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☐ ☐ ☒	BPC 8 establishes A3.2a is applicable to the planning stage and use. However, the subject planning proposal is for a day use and will not provide any overnight accommodation. Therefore, A3.2b is the applicable acceptable solution for access routes and A3.2a is not applicable.
☐ ☐ ☒	Subject site is in Area 1 (Urban) (Map of BPA). Public road access, with all-weather surfaces, is to be provided to at least one suitable destination.
☐ ☒ ☐	Subject site is in Area 2 (Map of BPA). Public road access, with all-weather surfaces, is provided in two different directions, to at least two different suitable destinations.

Assessment Supporting Details: Refer to the outcomes-based approach detailed in section 5.4.

A3.2b Access routes for a day use with no overnight accommodation	Applicable:	No	Compliant:	-
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☐ ☐ ☒	BPC 8 establishes A3.2b is applicable to the planning stage. However, A3.2b is not applicable to the subject planning proposal as it will provide overnight accommodation.
☐ ☐ ☒	Subject site is in Area 1 (Map of BPA). Public road access, with all-weather surfaces, is to be provided in one direction to a single suitable destination.
☐ ☐ ☒	Subject site is in Area 2 (Map of BPA). Public road access, with all-weather surfaces, is to be provided in two different directions, to at least two different suitable destinations.
☐ ☐ ☒	Subject site is in Area 2 (Map of BPA). Public road access, with all-weather surfaces, is provided in one direction to a single suitable destination and can be considered an acceptable solution as the following established requirements can be met:
☐ ☐ ☒	It is demonstrated that secondary access (including an emergency access way), cannot be provided due to site constraints; and
☐ ☐ ☒	The tourism land use / day use is within a residential built out area; or
☐ ☐ ☒	The required Bushfire Emergency Plan (BEP) plan provides for: - Closure during days forecasted to be an extreme or catastrophic fire danger rating and a total fire ban; and - For the early evacuation of patrons and staff; or
☐ ☐ ☒	The required Bushfire Emergency Plan (BEP) provides for non-operation during the bushfire season.

Assessment Supporting Details: Not applicable

A3.3a No-Through Roads	Applicable:	Yes	Compliant:	No
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☐ ☐ ☒	BPC 8 establishes A3.3a is applicable to the planning stage and land use. However, as the subject site is in Area 1 (Urban) (Map of BPA), for which there is no limitation on no-through road lengths, A3.3a is not applicable to the subject planning proposal.
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- ☐ ☒ ☐ BPC 8 establishes A3.3a is applicable to the planning stage and land use. However, access to the subject site is via a private driveway from a public road with two-way access. Vehicular access to the site does not have a no-through road component. Therefore, A3.3a is not applicable to the subject planning proposal.
- ☐ ☐ ☒ BPC 8 establishes A3.3a is applicable to the planning stage and land use. However, the subject planning proposal is for a day use with no overnight accommodation which results in A3.2b being the applicable access route acceptable solution. This dictates whether A3.3a is applicable to the subject planning proposal or not.
- The subject planning proposal's assessment against A3.2b has determined it is compliant with the 'exception conditions', and a single suitable destination can be considered an acceptable solution.
- Consequently, no limitation is being enforced on the access route length to the suitable destination and therefore A3.3a is not applicable to the subject planning proposal.
- (Refer to Section 4 'Identified Bushfire Planning Issues' for additional information, to inform the decision maker, regarding the single access route and the nature of factors that will contribute to levels of risks associated with a bushfire event, to persons using the available route).*
- ☐ ☐ ☒ BPC 8 establishes A3.3a is applicable to the planning stage and land use. However, the subject planning proposal is for a day use with no overnight accommodation which results in A3.2b being the applicable access route acceptable solution. This dictates whether A3.3a is applicable to the subject planning proposal or not.
- The subject planning proposal's assessment against A3.2b has determined it is unable to comply with the 'exception conditions', and public road access in two different directions to two suitable destinations is to be provided. Consequently, A3.3a is applicable to the subject planning proposal.
- ☐ ☐ ☒ Subject site is in Area 2 (Map of BPA). Access to the subject site is via a no-through public road that does not exceed the established maximum of 200 metres in length from the subject site boundary to an intersection where two-way access is provided.
- ☐ ☒ ☐ Subject site is in Area 2 (Map of BPA). Access to the subject site is via a no-through public road that exceeds the established maximum of 200 metres in length from the proposed lot(s) boundary to an intersection where two-way access is provided. The additional road length can be considered to satisfy the acceptable solution as the following established requirements can be met:
- ☐ ☒ ☐ It is demonstrated that that an alternative access, including an emergency access way, cannot be provided due to site constraints; and
- ☒ ☐ ☐ The no-through road travels towards a suitable destination; and
- ☐ ☒ ☐ The balance of the no-through road that is greater than 200 metres from the subject site is:
- Wholly within a residential built-out area; or
 - Wholly within an area designated Area 1 (Urban) on Map of BPA; or
 - Potentially subject to radiant heat levels from adjacent bushfire prone vegetation not exceeding 12.5 kW/m² / BAL-LOW (Guidelines Figure 29).

Assessment Supporting Details: Refer to the outcomes-based approach detailed in section 5.4.

A3.3b No-through roads technical requirements

Applicable:

Yes

Compliant:

Yes

☐	☐	☒	BPC 8 establishes A3.3b is applicable to the planning stage and land use. However, the assessment for A3.3a has established that vehicular access to the site does not have a no-through road component. Therefore, A3.3b is not applicable to the subject planning proposal.
☒	☐	☐	The no-through road meets the public road technical requirements for minimum vertical clearance (4.5 metres) and minimum weight capacity (15 tonnes - includes bridges, culverts).
☒	☐	☐	The no-through road meets the public road technical requirement <u>recommended</u> in the Guidelines in Appendix B3, B3.1 for a minimum horizontal clearance of 6 metres.
☒	☐	☐	The no-through road (i.e. public road) technical requirements for minimum horizontal clearance (excluding perimeter road), gradients and curves should be in accordance with the class of road as specified in the Public Works Engineering Australasia (IPWEA) subdivision guidelines, Liveable Neighbourhoods, Austroads Standards, any applicable or relevant Main Roads standards, supplements, policies and any applicable or relevant local government standards or policies. The assessment conducted for the bushfire management plan indicates that it is likely that the proposed development can and will comply with the requirements. The applicable class(s) of road and their technical requirements have been confirmed with the relevant local government/Main Roads WA. These can and will be complied with.
☒	☐	☐	The turnaround area / head requirements (Guidelines, Figure 30) can and will be complied with.

Assessment Supporting Details: The no through road meets the technical requirements of the Planning for Bushfire Guidelines. The turn around area is at the end of Barrabup Road.

A3.4 Emergency access way			Applicable:	No	Compliant:	-
☐	☒	☐	BPC 8 establishes A3.4 is applicable to the planning stage and land use. However, the subject planning proposal has been assessed as either:			
			- Compliant with A3.2, A3.3a and A3.3b; or - Compliant with A3.2, A3.4; or - Compliant with A3.2 and A3.3a and A3.3b are not applicable.			
			Therefore, an emergency access way is not required and A3.4 is not applicable.			
☐	☒	☐	The requirements established for acceptable no-through road access to the subject site in A3.2 and A3.3 cannot be achieved. An emergency access way (EAW) is provided as the alternative access and can be considered as an acceptable solution, when the following established requirements are met:			
☐	☒	☐	It is demonstrated that site constraints prevent the requirements of A3.2 and A3.3 being met; and			
☐	☐	☒	The access way is no more than 500 metres in length, provides a through connection to a public road connecting to a public road network; and			
☐	☐	☒	The access way meets the technical requirements (Guidelines Appendix B3, Table 10) for minimum horizontal clearance (Map of BPA Area 1 (Urban) = 6 metres and Area 2 = 10 metres), minimum vertical clearance (4.5 metres), minimum weight capacity (15 tonnes - includes bridges, culverts) and minimum inner radius of road curves (8.5 metres); and			
☐	☐	☒	The access way meets the technical requirements (Guidelines Appendix B3, Table 10) for crossfalls and gradients for different surfaces and dips; and			

- ☐ ☐ ☒ The access way will be signposted and, if gated, gates will open for the whole carriageway width and remain unlocked; and
- ☐ ☐ ☒ The proponent has obtained consent from the local government, that it will accept care, control and management responsibilities for the emergency access way.

Assessment Supporting Details: None required

A3.5 Onsite shelter

Applicable:

Yes

Compliant:

No

- ☐ ☒ ☐ BPC 8 establishes A3.5 is applicable to the planning stage and land use. However, the subject planning proposal has been assessed as either:
- Compliant with A3.2, A3.3a and A3.3b; or
 - Compliant with A3.2 and A3.4; or
 - Compliant with A3.2, and where A3.3a, A3.3b and A3.4 have been assessed as not applicable.
- Compliant two-way access has been provided; therefore, an onsite shelter is not required and A3.5 is not applicable.
- ☐ ☐ ☒ The proposed development has a capacity of up to a maximum of 50 guests and employees at any one time and the requirement for compliant two-way access cannot be achieved. Consequently, an onsite shelter will be provided in accordance with A2.5.
- ☐ ☐ ☒ The proposed development has a capacity of up to a maximum of 50 guests and employees at any one time and the requirement for compliant two-way access cannot be achieved and the bushfire practitioner considers an onsite shelter not necessary.
- An outcomes-based approach may be prepared to determine the level of relevant risks to persons and property and whether adequate protection measures can be implemented to result in an acceptable or tolerable level of residual risk.
- ☒ ☐ ☐ The proposed development has a capacity greater than 50 guests and employees at any one time, the requirement for compliant two-way access cannot be achieved and/or the bushfire practitioner considers an onsite shelter not necessary.
- An outcomes-based approach may be prepared to determine the level of relevant risks to persons and property and whether adequate protection measures can be implemented to result in an acceptable or tolerable level of residual risk.

Assessment Supporting Details: Refer to the outcomes-based approach detailed in section 5.4.

A3.6 Fire service access route

Applicable:

No

Compliant:

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- ☐ ☐ ☒ BPC 8 establishes A3.6 is applicable to the planning stage and land use. However, the proposed lots only adjoin Class G Grassland (classified under AS 3959). Therefore, A3.6 is not applicable to the subject planning proposal.
- ☐ ☐ ☒ BPC 8 establishes A3.6 is applicable to the planning stage and land use. However, suitable access is currently available to all classified vegetation that is not Class G Grassland (under AS 3959). Therefore, A3.6 is not applicable to the subject planning proposal.
- ☐ ☐ ☒ The proposed lots adjoin classified vegetation that is not Class G Grassland (classified under AS 3959). A fire service access route is provided for firefighter access where suitable access is not available to the classified vegetation that is not Class G Grassland. It can and will meet the following established requirements.

- | | | | |
|--------------------------|--------------------------|-------------------------------------|--|
| ☐ | ☐ | ☒ | The access route is a through-route with no dead-ends, no further than 500 metres from a public road and will be signposted; and |
| ☐ | ☐ | ☒ | The access route meets the technical requirements (Guidelines Appendix B3, Table 10) for minimum horizontal clearance (Map of BPA Area 1 (Urban) = 6 metres and Area 2 = 10 metres), minimum vertical clearance (4.5 metres), minimum weight capacity (15 tonnes - includes bridges, culverts) and minimum inner radius of road curves (8.5 metres); and |
| ☐ | ☐ | ☒ | The access route meets the technical requirements (Guidelines Appendix B3, Table 10) for crossfalls and gradients for different surfaces and dips; and |
| ☐ | ☐ | ☒ | When gated, gates will open the whole carriageway width and can be locked by the local government and/or the emergency services, when keys are provided for each gate; and |
| ☐ | ☐ | ☒ | The proponent has obtained consent from the local government, that it will accept care, control and management responsibilities for the fire service access route (unless it is a Crown reserve managed by another entity). |

Assessment Supporting Details: The application of this acceptable solution appears to be more directed at multi lot proposals as evidenced by the included 'proposed lots' wording and its application as an acceptable solution for subdivision applications. This application has an existing private driveway/accessway that is compliant with the technical requirements and an additional fire service access route would not serve any additional purpose. All classified vegetation can be accessed from the private driveway.

A3.7 Internal vehicular access and private driveways	Applicable:	Yes	Compliant:	Yes
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|-------------------------------------|--------------------------|-------------------------------------|---|
| ☐ | ☐ | ☒ | BPC 8 establishes A3.7 is applicable to the planning stage and land use. However, the subject planning proposal does not contain vehicular access and private driveways longer than 70 metres. Therefore, A3.7 is not applicable. |
| ☒ | ☐ | ☐ | There are internal vehicular access and private driveways longer than 70 metres and the subject site will meet all the following established requirements: |
| ☒ | ☐ | ☐ | The private driveway meets the technical requirements (Guidelines Appendix B3, Table 10) for minimum horizontal clearance (6 metres) or where not required to comply with the Guidelines width, it meets the requirements of the Residential Design Codes and Development Control Policy 2.2 Residential Subdivision; and |
| ☒ | ☐ | ☐ | The private driveway meets the technical requirements (Guidelines Appendix B3, Table 10) for minimum vertical clearance (4.5 metres), minimum weight capacity (15 tonnes - includes bridges, culverts) and minimum inner radius of road curves (8.5 metres); and |
| ☒ | ☐ | ☐ | The private driveway meets the technical requirements (Guidelines Appendix B3, Table 10) for the gradients of different surfaces and dips; and |
| ☒ | ☐ | ☐ | Passing bays can and will be installed 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 will be a minimum 6 metres; and |
| ☒ | ☐ | ☐ | The turnaround area / head requirements (Guidelines, Figure 30) can and will be complied with. |

Assessment Supporting Details: The internal driveway will be constructed to the technical requirements when the caravan and camping area is established.

A3.8 Signage		Applicable:	Yes	Compliant:	Yes
☒ ☐ ☐ Signage can and will be provided within the subject site, advising of where each access route travels to and the distance and general information on what to do in the event of a bushfire.					
<u>Assessment Supporting Details:</u> Evacuation signage will be installed within the caravan and camping area for guests to view.					

5.3.3 Element 4: Water Supply

ELEMENT 4: WATER SUPPLY (DEVELOPMENT –VULNERABLE TOURISM LAND USES AND DAY USES)			
All details of acceptable solution requirements are established in the Planning for Bushfire Guidelines (Guidelines) – WA Department of Planning, Lands and Heritage (DPLH, as amended). When relevant, the 'Bushfire Management Plan Guidance for the Dampier Peninsula' (DPLH, 2021 Rev B), is also referenced.			
O4	State Planning Policy 3.7 Bushfire - Outcomes to be Achieved		
	SPP 3.7, 6.4: Ensure that sufficient water is available and accessible for emergency services, to enable people, property and infrastructure to be defended from bushfire.		
E4	Statement for Compliance with Element E1 – The Deemed to Comply Pathway		
	The planning proposal is fully compliant with all applicable acceptable solutions and therefore achieves the required outcomes of this element.		
ACCEPTABLE SOLUTIONS - ASSESSMENT STATEMENTS			
Check Box Legend: ☒ Relevant & met ☒ Relevant & not met ☐ Not relevant			
A4.1 Water supply		Applicable:	Compliant:
☐ ☐ ☐	Evidence is provided that a reticulated water supply, available for firefighting purposes, exists or can be provided. Hydrant connection(s) will be provided in accordance with the specifications established by the relevant water supply authority (refer also to hydrant location information in Appendix D of this BMP).		
☐ ☐ ☐	The subject site will have a reticulated water supply but is in an area designated as Area 2 on the Map of BPA and/or the local government area has known issues with water supply or pressure. The proposed development will adopt the Guidelines recommendation to provide water supply tank(s) and fittings dedicated to firefighting purposes that satisfy the construction and design requirements established in Appendix B4: Water Supply.		
☐ ☐ ☐	The subject site is serviced by reticulated water. However, the distance from the public road (along which the fire hydrant is located) to the farthest part of the habitable building is greater than 70 metres, exceeding the reach of a hose reel. A water supply tank will be installed within the lot in accordance with the relevant requirements of Guidelines, Appendix B4: Water Supply.		
☒ ☐ ☐	The provision of or the specifications of a reticulated water supply cannot be met. Evidence is provided that a sufficient, sustainable and accessible non-reticulated water supply, dedicated to firefighting purposes, can and will be provided in accordance with the specifications established in the Guidelines, Appendix B4: Water Supply.		
☐ ☐ ☐	The planning proposal is for a vulnerable land use development (not camping ground). For <u>each habitable building</u> a water supply, dedicated to firefighting purposes, will be stored in tanks at 10,000 litres of water per 500 m ² of floor area up to 50,000 litres in total.		
☒ ☐ ☐	The planning proposal is for a 'camping ground' vulnerable land use development. The required water supply dedicated to firefighting purposes is to be determined at the discretion of the local government and this will be complied with. Evidence is provided of the determined requirements and is presented as an Addendum in this BMP.		

- | | |
|---|---|
| ☒ ☐ ☐ | <p>The above ground water supply tank(s), dedicated to firefighting purposes (and tank stand(s) when applicable), will be constructed of non-combustible material and as necessary, will comply with AS/NZS 3500.1 (as amended).</p> <p>This includes not using the same water supply for both domestic use and firefighting purposes. If a combined use tank(s) is to be used, it will separate the storage compartments in accordance with the provisions of the standard (i.e. internal installation of double partition walls).</p> |
| ☒ ☐ ☐ | <p>All above-ground, exposed water supply pipes and fittings will be metal and positioned facing away from the source of bushfire hazard and/or shielded against potential bushfire impact – to allow access by emergency services.</p> |
| ☒ ☐ ☐ | <p>The planned provision of the water supply tank(s) will consider locations relative to the bushfire hazard. Location of the tank(s) and management of vegetation will ensure vegetation will not exist over or against the tank(s) and that sufficient separation exists to limit the potential bushfire impact.</p> <p>Due consideration will also be given to the provision of sufficient separation from vegetation and/or shielding for the protection of firefighters accessing the water supply.</p> |
| ☒ ☐ ☐ | <p>An unobstructed, hardened ground surface, for emergency services vehicle access, can and will be installed within 4 metres of the water supply outlet (refer to Figure 39, Guidelines).</p> |
| ☒ ☐ ☐ | <p>It is proposed for a water supply tank outlet(s) is to be remote from the tank, the local government and DFES will have been consulted regarding the application and location. The determined requirements are presented as an Addendum in this BMP.</p> |
| ☐ ☐ ☒ | <p>Planned below ground water supply tank(s), dedicated to firefighting purposes, will have at least a 200 mm diameter access hole – or a suitable inspection opening - to allow tankers or emergency services vehicles to refill direct from the tank, with the outlet location clearly marked on the surface. As necessary, the tanks(s) will comply with AS/NZS 3500.1 (as amended).</p> |
| ☒ ☐ ☐ | <p>The subject site is in a non-reticulated area. The planning proposal adopts the recommendation contained in Guidelines, Appendix B4: Water supply, that where pumping equipment is installed it will be powered by means other than the electricity network such as an appropriately powered and capacity petrol/diesel or onsite generator/electricity, driven pump, and be shielded against potential bushfire impact.</p> |
| ☐ ☐ ☒ | <p>The planning proposal intends that a suitable static water supply is to be provided by a dam or river that complies with the DFES guidelines for acceptable sources of water for firefighting purposes.</p> <p>Evidence is provided that:</p> <ul style="list-style-type: none"> • Demonstrates that the water level will be maintained above the top of the highest fire brigade suction point; and • Approval has been obtained from the decision maker in consultation with the emergency services and is presented as an Addendum in this BMP. |

Assessment Supporting Details: A dedicated 20,000 litre water tank for fire-fighting capability will be located adjacent to the existing shed. There is a dam on the property if additional water is required, and there is an accessible dam on the neighbouring property should additional water be required.

There is a standpipe at the North Nannup fire brigade shed located on Dean Road, 5.1kms from Loose Goose.

[Refer to additional technical requirement information contained in Appendix D]

5.4 Outcomes-Based Approach is Applied to Satisfy SPP 3.7 Required Outcomes

EXPLANATORY INFORMATION

For the subject planning proposal, the application of the deemed-to-comply pathway for assessment and approval, conducted in the previous section of the BMP, has not been able to demonstrate full compliance with all relevant acceptable solutions to satisfy the required outcomes of State Planning Policy 3.7 Bushfire (SPP 3.7).

Clause 7.5 of SPP 3.7 establishes an outcomes-based approach, following the stated criteria, as an alternative compliance assessment pathway, to demonstrate how alternative bushfire risk management measures may be able to satisfy the required outcomes of SPP 3.7.

Section 2.2.1 of the Guidelines further details that the required outcomes of SPP 3.7 (also stated as the outcomes of each element of the bushfire protection criteria), can be achieved by demonstrating compliance with one of the following:

- (a) Acceptable solutions
- (b) Outcomes-based approach
- (c) A combination of (a) and (b)

It is demonstrated in this section of the BMP that the subject planning proposal, in the expert opinion of the bushfire consultant, can satisfy the stated outcomes of the bushfire protection criteria and therefore the required outcomes and stated objectives of SPP 3.7.

THE SUBJECT PLANNING PROPOSAL

SUMMARY OF COMPLIANCE PATHWAYS APPLIED TO SATISFY BPC ELEMENT OUTCOMES (AND SPP 3.7 OBJECTIVES)

BPC Element and Required Outcomes	Acceptable Solutions (Deemed-to-Comply)	Outcomes Based Approach	Combination
Location: Avoid broader landscapes that present an unacceptable bushfire risk to people, property and infrastructure.	-	-	-
Siting and Design: Ensure siting and design solutions (a) manage or mitigate the bushfire risk to people, property and infrastructure; and (b) avoid, or where unavoidable, minimises the clearing of native vegetation.	✓	-	-
Vehicular Access: Ensure the design and capacity of vehicular access and egress provide (a) for efficient and effective evacuation to a suitable destination(s) and/or (b) as a contingency measure for vulnerable land uses, an on-site shelter, where demonstrated appropriate, as a last resort option.	-	-	✓
Water Supply: Ensure that sufficient water is available and accessible for emergency services, to enable people, property and infrastructure to be defended from bushfire.	✓	-	-

5.4.1 Performance Based Assessment – Comparison with the Acceptable Solution

Note: The assessment against the bushfire protection criteria (in the preceding Section 5.3) has determined that full compliance with all relevant acceptable solutions cannot be achieved for the subject planning proposal.

For decision maker consideration, an assessment applying the alternative pathway is presented to demonstrate that the subject planning proposal, in the expert opinion of the bushfire consultant, can satisfy all SPP 3.7 policy outcomes and therefore the policy objectives.

EXPLANATORY INFORMATION

The Policy Outcomes

State Planning Policy 3.7 Bushfire (SPP 3.7), Clause 6, establishes four policy outcomes to be satisfied and that these “specify the role of planning and development in contributing to the overall objectives” of SPP 3.7.

Assessment of Planning Proposal to Satisfy Outcomes – The Deemed to Comply Pathway (Acceptable Solutions)

The Planning for Bushfire Guidelines (Guidelines) establish the bushfire protection criteria containing the four elements of Location, Siting and Design, Vehicular Access and Water Supply.

Each element addresses one of SPP 3.7 outcomes and establishes sets of acceptable solutions (corresponding to the planning stage of a proposal), that when complied with, can be considered to satisfy the associated policy outcome. If not fully compliant, an alternative assessment pathway can be applied and the outcome considered by the decision maker.

Assessment of Planning Proposal to Satisfy Outcomes – The Alternative Pathway (Outcomes-Based Approach)

Clause 7.5 of SPP 3.7 establishes the ability to apply an outcomes-based approach. It “recognises that some sites are unable to fully comply with the acceptable solutions of the Guidelines due to complex site characteristics and/or environmental values, but through the use of innovative, alternative bushfire risk management measures may be able to satisfy the outcomes of this policy.”

Section 2.2.1 of the Guidelines explains that each outcome of SPP 3.7 can be “achieved by demonstrating compliance with one of the following”:

- (d) Acceptable solutions (associated with each element of the bushfire protection criteria)
- (e) Outcomes-based approach
- (f) A combination of (a) and (b)

The Outcomes-Based Approach

1. Clause 7.5 of SPP 3.7 establishes that in conducting an outcomes-based approach, an assessment is to be undertaken in accordance with the stated criteria, referenced as criterion (a) to (g).
2. Appendix B (Guidelines) provides additional guidance for undertaking an outcomes-based approach for specific components of the bushfire protection criteria. These are:
 - (a) Element 1: Location (Appendix B1.2)
 - (b) Element 3: Vehicular Access – No-through roads - length (Appendix B3.3.1)
 - (c) Element 3: Vehicular Access – Emergency access way – width and/or length (Appendix B3.4.1)

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5.4.2 Assessment Against the SPP 3.7 OBA Criteria

The following assessment is conducted in accordance with SPP 3.7 cl. 7.5 and the Guidelines Part 2.2.1 (b).

Where other assessments have been conducted in this BMP as part of the application of the outcomes-based approach, their summary outcomes will also be included in this assessment against the SPP 3.7 OBA criteria.

SPP3.7 Clause 7.5(i) acknowledges that the site is unable to fully comply with the acceptable solutions of the Guidelines in respect to vehicular access.

5.4.2.1 OBA Criterion A

The BMP is to address the acceptable solutions to the greatest extent possible.

ASSESSMENT DETAIL

For the subject planning proposal, the detailed assessment against each relevant element and each corresponding relevant acceptable solution is presented in Section 5.3. The assessment result is summarised in Section 5.2.

Compliance with Element 2 and 4 has been demonstrated within these sections.

5.4.2.2 OBA Criterion B

The BMP is to identify any non-compliance with the relevant acceptable solutions and why compliance cannot be achieved.

ASSESSMENT DETAIL

For the subject planning proposal, the detailed assessment that identifies the non-compliance against any relevant acceptable solution is presented in Section 5.3.

Identification of those relevant acceptable solutions for which compliance is not achieved is presented in the following table, along with a summary of why compliance cannot be achieved.

STRUCTURE PLAN / SUBDIVISION	
THE RELEVANT ACCEPTABLE SOLUTIONS THAT CANNOT BE FULLY COMPLIED WITH	
The Bushfire Protection Criteria (BPC) Elements and Acceptable Solutions	Reasons for Inability to Achieve Compliance
E3: VEHICULAR ACCESS:	Barrabup Road provides access and egress in one direction to two different locations (Busselton and Nannup) and is accessed from the subject lot via Mowen Road and Vasse Highway.
A3.2a Multiple access routes	
A3.3a No-Through Roads	

	Barrabup Road is a no-through road and is part of an existing legacy road layout that satisfies the technical requirements but is greater than the maximum acceptable solution length of 200m. The distance from the subject lot to Blackwood River Drive is approximately 750m which exceeds the maximum 200m established by the acceptable solution. The non-compliant no-through road is an existing part of a road network, designed and established prior the implementation of bushfire planning requirements (SPP 3.7) in WA. These access issues are a result of the historical planning / works approvals issued by the Shire of Nannup. Therefore, imposing an expectation on one owner to devise new and improved access arrangements would be arguably unreasonable.
A3.4 Onsite shelter	Calculations using Method 2 Flamesol have determined that an onsite safer space (2Kw/m²) is not achievable. Separation distances required from Class A Forest is 160m (achievable), Class G Grassland is 90m (achievable). The problem is Class C Scrub which requires a minimum of 90m. Early evacuation is the primary message in a bushfire emergency. Once Gracillis Road is formalised, the Bushfire Management Plan will be compliant with the technical requirements of the Planning for Bushfire Guidelines.

5.4.2.3 OBA Criterion C

Detail how the design addresses bushfire risk and where additional bushfire risk management measures have been deemed necessary and included to minimise the risk.

ASSESSMENT DETAIL

BAL-29 requirements will be implemented to provide bushfire resilience to the proposed site. Additional measures include a commitment to manage and maintain in perpetuity the APZ within the caravan park and camping area as per the Landscape Management Plan.

Loose Goose is a large property and bushfire mitigation is and can continue to be addressed across the entire site to ensure protection of areas where people will camp overnight.

Acknowledging the site's non-compliant access and the proposed intensification, an additional bushfire risk management measure (a Bushfire Evacuation Plan (BEP) has been developed. The BEP will ensure visitors are well informed of early evacuation procedures, providing an additional precautionary measure beyond standard bushfire planning requirements.

5.4.2.4 OBA Criterion D

Detail if there are any community net-benefits. Note these are benefits resulting from:

- The additional management of bushfire risk (i.e. those risks to persons, property and infrastructure that are associated with a bushfire event), due to the implementation of bushfire protection measures associated with the subject planning proposal that otherwise would be unlikely to exist; and/or
- Environmental benefits.

ASSESSMENT DETAIL

The completion of Gracillis Road will benefit the entire rural subdivision. This application strengthens the requirement for the documentation to be finalised for this road project.

Through the implementation of the BAL-29 APZ, the fuel loads within not only the subject lot but also the adjoining common property will be significantly reduced.

5.4.2.5 OBA Criterion E

Include any fire engineering solutions or written evidence such as publications and State Administrative Tribunal decisions to support the proposal (where available).

ASSESSMENT DETAIL

Not applicable to the subject planning proposal.

5.4.2.6 OBA Criterion F

Outline how the SPP 3.7 policy outcomes have been achieved.

ASSESSMENT DETAIL

The SPP 3.7 Policy Outcome Not Satisfied by the Deemed to Comply Pathway (Acceptable Solutions)	Assessment Detail - How the Policy Outcome is Achieved (as the expert opinion of the bushfire planning practitioner)
SPP 3.7, 6.3: 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.	The existing road network has been designed and established prior the implementation of bushfire planning requirements (SPP 3.7) in WA. The intersection to a secondary suitable destination is further from the subject site than deemed compliant in the Guidelines. To mitigate the impact of existing non-compliant access, a BEP has been developed to assist visitors staying at the property in evacuation procedures in the event of a bushfire.

5.4.2.7 OBA Criterion G

Outline why approval is warranted by the decision-maker in this instance.

ASSESSMENT DETAIL

Loose Goose has been an operating tourism venture (previously operating as Nannup Bush Cabins) since 1988 and the function centre has been operating since 2005. As a result of this BMP the proposal has been brought into compliance 'to the fullest extent possible'.

The non-compliant no-through road are issues with the existing road network, designed and established prior the implementation of bushfire planning requirements (SPP 3.7) in WA. These issues are beyond the control of the individual landowner. Gracillis Road is currently used by North Nannup residents as an egress road and once the governance requirements are met, this will be a public road to Mowen Road and full compliance will be achieved.

Given the above justifications and context, it's clear this proposal represents an exceptional circumstance and, in these instances, SPP3.7 provides the flexibility for the decision maker to accept the proposal aligns with the intent of SPP3.7.

6 RESPONSIBILITY CHECKLISTS

EXPLANATORY INFORMATION

This section of the BMP sets out the responsibilities of the relevant entity or person for:

- The initial implementation of the required bushfire protection measures and their timing; and
- The ongoing maintenance of the required bushfire protection measures to ensure their effectiveness.

6.1.1 Landowner Responsibilities Prior To Commencement of Operation

TABLE 6.2(A)

REQUIRED BUSHFIRE PROTECTION MEASURES - IMPLEMENTATION ACTIONS
(SUBJECT TO COMPLIANCE CHECK TO BE CONDUCTED BY A BUSHFIRE CONSULTANT)

1	Prior to occupancy/operation establish the 'Required' Asset Protection Zone (APZ) around habitable buildings (and other structures as required) to satisfy: • The minimum required dimensions established in Appendix B1; and • As specified in the Landscape Management Plan referenced in the approved BMP. If native vegetation is required to be modified or removed, ensure that approval has been received from the relevant authority (refer to the applicable local government for advice).
2	Prior to occupancy, construct the private driveways to comply with the technical requirements referenced in the BMP.
3	Prior to occupancy, install the required firefighting static water supply to comply with the technical requirements stated in the BMP.
4	Prior to occupancy, when open air campfires will be part of site operations, install firepits and associated vegetation clearance to meet the requirements established by s25 of the Bushfires Act 1954 through acceptable solution A5.10b in the BMP.
5	Prior to occupancy, for the 'vulnerable' land use, there is an outstanding obligation, created by this Bushfire Management Plan, for a Bushfire Emergency Plan for proposed occupants to be developed and approved.
6	Prior to occupancy, signage must be prominently displayed within the site that informs the actions of those persons onsite in the event of a bushfire. This will include evacuation route information, site procedures – as per the instructions within the Bushfire Information Poster developed for the site and use.
7	Prior to occupancy, all actions contained within the 'Pre-Season Preparation Procedure' established by the Bushfire Emergency Plan, must be completed.

TABLE 6.2(C)
**REQUIRED BUSHFIRE PROTECTION MEASURES - IMPLEMENTATION ACTIONS
(NOT SUBJECT TO COMPLIANCE CHECK)**

1	Prior to relevant building work, inform the builder of the existence of this approved Bushfire Management Plan (BMP). The plan identifies that the development site is within a designated bushfire prone area and states the indicative (or determined) BAL rating(s) that may (or will) be applied to buildings/structures. A BAL assessment report may be required to confirm determined ratings and will be required when ratings are indicative. BAL certificates will need to be issued to accompany building applications. The BMP may also establish, as an additional bushfire protection measure, that construction requirements to be applied will be those corresponding to a specified higher BAL rating. Compliance with the Building Code of Australia (Volumes 1 and 2 of the National Construction Code), will require certain bushfire resistant construction requirements be applied to residential buildings in bushfire prone areas (i.e., Class 1, 2 and 3 and associated Class 10a buildings and decks). Other classes of buildings may also be required to comply with this construction when established by the relevant authority or if identified as an additional bushfire protection measure within the BMP. The deemed to satisfy solutions that will meet the relevant bushfire performance requirements are found in AS 3959 – Construction of Building in Bushfire Prone Areas (as amended) and the NASH Standard - Steel Framed Construction in Bushfire Areas (as amended).
3	Prior to sale or occupancy, a copy of the Bushfire Emergency Plan (BEP) must be provided to the landowner, and they are to be informed that it contains responsibilities that must be actioned due to the use of the land being defined as a 'Vulnerable Land Use' for the reasons identified in Section 1.1. The 'Pre-Season Preparation Procedure' instructions must be complied with.

6.1.2 Operator Responsibilities – Ongoing Management

TABLE 6.3 REQUIRED BUSHFIRE PROTECTION MEASURES – ONGOING MANAGEMENT ACTIONS	
1	Maintain the 'Required' Asset Protection Zone (APZ) around habitable buildings, caravan and camp sites (and other structures as required) to satisfy: • The minimum required dimensions established in Appendix B1; and • As specified in the Landscape Management Plan referenced in the approved BMP.
2	Maintain any areas nominated to be revegetated in accordance with the vegetation classification and management standards as specified in the BMP and/or Landscape Management Plan.
3	Comply with the Shire of Nannup's Fuel Hazard Reduction and Firebreak Notice issued under s33 of the Bush Fires Act 1954. Check the notice annually for any changes.
4	As a vulnerable tourism land use for which open air campfires (contained in a firepit) are a part of site operations, enforce the use restrictions established by s25 of the Bush Fires Act 1954 and ensure the required vegetation clearances are maintained.
5	Maintain vehicular access routes within the lot to comply with the technical requirements referenced in the BMP and the relevant local government's annual firebreak / hazard reduction notice.
6	Maintain the static firefighting water supply tank and associated pipes/fittings/pump and vehicle access and hardstand in good working condition.
7	Ensure that builders engaged to construct dwellings/additions and/or other relevant structures on the lot, are aware of the existence of this approved Bushfire Management Plan (BMP). The plan identifies that the development site is within a designated bushfire prone area and states the indicative (or determined) BAL rating(s) that may (or will) be applied to buildings/structures. A BAL assessment report may be required to confirm determined ratings and will be required when ratings are indicative. BAL certificates will need to be issued to accompany building applications. Compliance with the Building Code of Australia (Volumes 1 and 2 of the National Construction Code), will require certain bushfire resistant construction requirements be applied to residential buildings in bushfire prone areas (i.e., Class 1, 2 and 3 and associated Class 10a buildings and decks). The deemed to satisfy solutions that will meet the relevant bushfire performance requirements are found in AS 3959 – Construction of Building in Bushfire Prone Areas (as amended) and the NASH Standard - Steel Framed Construction in Bushfire Areas (as amended). As an additional bushfire protection measure, other classes of buildings may also be required to comply with these construction requirements when established by the relevant authority or if identified as an additional bushfire protection measure within the BMP. The BMP may also establish that construction requirements to be applied will be those corresponding to a specified higher BAL rating. When applicable, these requirements will be identified in Section 5.7.
8	Ensure all future buildings the landowner has responsibility for, are designed and constructed in full compliance with:

	• The bushfire resistant construction requirements of the Building Code of Australia (Volumes 1 and 2 of the National Construction Code), as established by the Building Regulations 2012 (WA Building Act 2011); and • Any additional bushfire protection measures this Bushfire Management Plan has established are to be implemented.
9	Annually review the Bushfire Emergency Plan and complete all actions contained within the 'Pre-Season Preparation Procedure' and the 'In-Season Preparation Procedure' at the appropriate times of the year.
10	Ensure the ongoing implementation of the BMP, including providing successive landowners with a copy of the BMP and making them aware of the responsibilities it contains.

APPENDIX A: DETAILED BAL ASSESSMENT DATA AND SUPPORTING INFORMATION

A1: BAL Assessment Inputs Common to the Method 1 and Method 2 Procedures

A1.1: FIRE DANGER INDICES (FDI/FDI/GFDI)

When using Method 1 the relevant FDI value required to be applied for each state and region is established by AS 3959:2018, Table 2.1. Each FDI value applied in Tables 2.4 – 2.7 represents both the Forest Fire Danger Index (FFDI) and a deemed equivalent for the Grassland Fire Danger Index (GFDI), as per Table B2 in Appendix B. When using Method 2, the relevant FFDI and GFDI are applied.

The values may be able to be refined within a jurisdiction, where sufficient climatological data is available and in consultation with the relevant authority.

Relevant Jurisdiction:	WA	Region:	Whole State	Method 1	Applied FDI:	80
				Method 2	Applied FFDI:	
					Applied GFDI:	

A1.2: VEGETATION ASSESSMENT AND CLASSIFICATION

Vegetation Types and Classification

In accordance with AS 3959:2018 Clauses 2.2.3 and C2.2.3.1, all vegetation types within 100 metres of the 'site' (defined as "the part of the allotment of land on which a building stands or is to be erected"), are identified and classified. Any vegetation more than 100 metres from the site that has influenced the classification of vegetation within 100 metres of the site, is identified and noted. The maximum excess distance is established by AS 3959: 2018 Clause 2.2.3.2 and is an additional 100 metres.

Classification is also guided by the Visual Guide for Bushfire Risk Assessment in WA (WA Department of Planning February 2016) and any relevant FPA Australia practice notes.

Modified Vegetation

The vegetation types have been assessed as they will be in their natural mature states, rather than what might be observed on the day. Vegetation destroyed or damaged by a bushfire or other natural disaster has been assessed on its expected re-generated mature state. Modified areas of vegetation can be excluded from classification if they consist of low threat vegetation (refer to Appendix B) and that any required active management can be expected to continue in perpetuity, and this can be adequately justified.

The Influence of Ground Slope

Where significant variation in effective slope exists under a consistent vegetation type, these will be delineated as separate vegetation areas to account for the difference in potential bushfire behaviour, in accordance with AS 3959:2018 Clauses 2.2.5 and C2.2.5.

THE INFLUENCE OF VEGETATION GREATER THAN 100 METRES FROM THE SUBJECT SITE

Vegetation area(s) within 100m of the site whose classification has been influenced by the existence of bushfire prone vegetation from 100m – 200m from the site:		No.
Assessment Statement:	No vegetation types exist close enough, or to a sufficient extent, within the relevant area to influence classification of vegetation within 100 metres of the subject site.	

VEGETATION AREA 1						
Classification	A. FOREST					
Types Identified	Open forest A-03		Select.		Select.	
Exclusion Clause	N/A					
Effective Slope	Measured	flat 0 degrees	Applied Range (Method 1)		Upslope or flat 0 degrees	
Foliage Cover (all layers)	>90%	Shrub/Heath Height	>2m	Tree Height	Up to 30m	
Dominant & Sub-Dominant Layers	Eucalypts (Marri, Jarrah and Redgum) growing to a height of 15m. Banksias, Sheoak growing to a height of 8m. Individual pine trees growing to a height of 15m. Overall canopy cover 70%.					
Understorey	Xanthoria, Emu Bush, native bushes and grasses, fallen branches and leaf litter.					
Justification Comments:	Not Required.					
Post Development Assumptions:	Not Required.					
 33°58'26", 115°44'9", 60.7m, 345° 25 Sept 2024 9:27:27 am  33°58'25", 115°44'9", 63.0m, 25° 25 Sept 2024 9:29:05 am						
PHOTO ID: 1			PHOTO ID: 2			
 33°58'29", 115°43'58", 56.2m, 343° 25 Sept 2024 10:13:49 am  33°58'29", 115°43'58", 55.9m, 351° 25 Sept 2024 10:13:59 am						
PHOTO ID: 3			PHOTO ID: 4			



PHOTO ID: 5



PHOTO ID: 6



PHOTO ID: 7



PHOTO ID: 8

VEGETATION AREA 2						
Classification	A. FOREST					
Types Identified	Open forest A-03		Select.		Select.	
Exclusion Clause	N/A					
Effective Slope	Measured	flat 0 degrees	Applied Range (Method 1)		Upslope or flat 0 degrees	
Foliage Cover (all layers)	>90%	Shrub/Heath Height	>2m	Tree Height	Up to 30m	
Dominant & Sub-Dominant Layers	Onsite vegetation Eucalypts (Marri, Jarrah) growing to a height of 15m. Banksias, Sheoak growing to a height of 8m. Individual pine trees growing to a height of 15m. Overall canopy cover 70%.					
Understorey	Xanthoria, Emu Bush, native bushes and grasses, fallen branches and leaf litter.					
Justification Comments:	Not Required.					
Post Development Assumptions:	Close to the proposed campground some Marri trees will require trimming and thinning to achieve Woodland classification. A section of Eucalypts (wind break) along the fence line (Photo ID: 14) to be under-pruned 2m, grass mown and fallen branches/leaf litter removed.					
 33°58'29", 115°44'6", 56.1m, 339° 25 Sept 2024 9:23:47 am						
PHOTO ID: 9			 33°58'27", 115°44'9", 61.0m, 329° 25 Sept 2024 9:27:15 am			
PHOTO ID: 9			PHOTO ID: 10			
 33°58'26", 115°44'9", 62.2m, 330° 25 Sept 2024 9:28:36 am						
PHOTO ID: 11			 33°58'29", 115°44'9", 58.4m, 324° 25 Sept 2024 9:33:59 am			
PHOTO ID: 11			PHOTO ID: 12			



PHOTO ID: 13



PHOTO ID: 14



PHOTO ID: 15

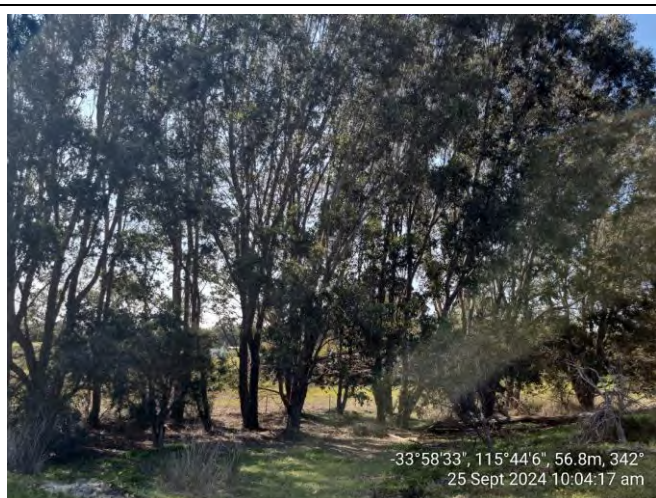


PHOTO ID: 16



PHOTO ID: 17



PHOTO ID: 18



PHOTO ID: 19



PHOTO ID: 20

VEGETATION AREA 3													
Classification	D. SCRUB												
Types Identified	Closed scrub D-13		Select.		Select.								
Exclusion Clause	N/A												
Effective Slope	Measured	flat 0 degrees	Applied Range (Method 1)		Upslope or flat 0 degrees								
Foliage Cover (all layers)	>90%	Shrub/Heath Height	>2m	Tree Height	Up to 30m								
Dominant & Sub-Dominant Layers	Melaleuca quinquenervia (Paperbark) growing to a height of 6m. Canopy cover 60%.												
Understorey	Grass and bracken.												
Justification Comments:	Not Required.												
Post Development Assumptions:	Not Required.												
 -33°58'35" 115°44'9" 52.4m, 340° 25 Sept 2024 9:46:05 am  -33°58'35" 115°44'9" 53.0m, 67° 25 Sept 2024 9:47:20 am <tr><td colspan="3">PHOTO ID: 21</td><td colspan="4">PHOTO ID: 22</td></tr>							PHOTO ID: 21			PHOTO ID: 22			
PHOTO ID: 21			PHOTO ID: 22										

VEGETATION AREA 4						
Classification	D. SCRUB					
Types Identified	Closed scrub D-13		Open scrub D-14		Select.	
Exclusion Clause	N/A					
Effective Slope	Measured	flat 0 degrees		Applied Range (Method 1)		Upslope or flat 0 degrees
Foliage Cover (all layers)	>90%		Shrub/Heath Height		>2m	Tree Height Up to 30m
Dominant & Sub-Dominant Layers	Melaleuca alternifolia (Tea tree), Melaleuca quinquenervia (Paperbark) and native bushes growing to a height of up to 5m with 50% canopy cover.					
Understorey	Native bushes and grasses, fallen branches and leaf litter.					
Justification Comments:	Not Required.					
Post Development Assumptions:	Not Required.					
 33°58'31", 115°44'5", 53.3m, 335° 25 Sept 2024 9:39:59 am						
PHOTO ID: 23				 33°58'37", 115°44'3", 53.1m, 345° 25 Sept 2024 9:58:13 am		
PHOTO ID: 23				PHOTO ID: 24		
 33°58'33", 115°44'6", 55.2m, 325° 25 Sept 2024 10:05:00 am						
PHOTO ID: 25				 33°58'33", 115°44'6", 55.0m, 325° 25 Sept 2024 10:04:54 am		
PHOTO ID: 25				PHOTO ID: 26		

VEGETATION AREA 5													
Classification	G. GRASSLAND												
Types Identified	Sown pasture G-26		Open tussock G-23		Open herbfield G-27								
Exclusion Clause	N/A												
Effective Slope	Measured	flat 0 degrees		Applied Range (Method 1)		Upslope or flat 0 degrees							
Foliage Cover (all layers)	>90%		Shrub/Heath Height		>2m	Tree Height Up to 30m							
Dominant & Sub-Dominant Layers	Sown pasture for stock (alpacas, sheep, goats). Grass height currently less than 10cms in paddocks. Surrounding the dam is a soak (to the south of the property) and the grass in this area is 10-30cms in height (Photo ID: 31)												
Understorey	N/A												
Justification Comments:	Not Required.												
Post Development Assumptions:	Not Required.												
 33°58'27", 115°44'12", 57.3m, 91° 25 Sept 2024 9:31:48 am  33°58'30", 115°44'7", 56.5m, 2° 25 Sept 2024 9:36:22 am PHOTO ID: 27 PHOTO ID: 28 <tr><td colspan="7">  33°58'31", 115°44'6", 54.4m, 0° 25 Sept 2024 9:38:49 am  33°58'34", 115°44'9", 53.4m, 333° 25 Sept 2024 9:45:26 am PHOTO ID: 29 PHOTO ID: 30 </td></tr>							 33°58'31", 115°44'6", 54.4m, 0° 25 Sept 2024 9:38:49 am  33°58'34", 115°44'9", 53.4m, 333° 25 Sept 2024 9:45:26 am PHOTO ID: 29 PHOTO ID: 30						
 33°58'31", 115°44'6", 54.4m, 0° 25 Sept 2024 9:38:49 am  33°58'34", 115°44'9", 53.4m, 333° 25 Sept 2024 9:45:26 am PHOTO ID: 29 PHOTO ID: 30													



PHOTO ID: 31



PHOTO ID: 32



PHOTO ID: 33



PHOTO ID: 34

VEGETATION AREA 6					
Classification	EXCLUDED				
Types Identified	Select.		Select.		
Exclusion Clause	2.2.3.2 (e) Non-vegetated areas and (f) Low threat vegetation - high moisture content.				
Effective Slope	Measured	flat 0 degrees	Applied Range (Method 1)		Upslope or flat 0 degrees
Foliage Cover (all layers)	-	Shrub/Heath Height	-	Tree Height	-
Dominant & Sub-Dominant Layers	Asset Protection Zone around habitable buildings, managed gardens, dams, orchard and vegetable patch.				
Understorey	N/A				
Justification Comments:	Not Required.				
Post Development Assumptions:	Not Required.				
 -33°58'29", 115°44'4", 52.1m, 76° 25 Sept 2024 9:22:40 am  33°58'29", 115°44'6", 55.5m, 326° 25 Sept 2024 9:23:25 am					
PHOTO ID: 35			PHOTO ID: 36		
 33°58'27", 115°44'11", 57.3m, 204° 25 Sept 2024 9:31:39 am  33°58'33", 115°44'4", 54.4m, 339° 25 Sept 2024 10:03:03 am					
PHOTO ID: 37			PHOTO ID: 38		



PHOTO ID: 39

A1.3: SEPARATION DISTANCE

Measuring

The separation distance is the distance in the horizontal plane between the receiver (building/structure or area of land being considered) and the edge of the classified vegetation (AS 3959:2018, clause 2.2.4)

The relevant parts of a building/structure from which the measurement is taken is the nearest part of an external wall or where a wall does not exist, the supporting posts or columns. Certain parts of buildings are excluded including eaves and roof overhangs.

The edge of the vegetation, for forests and woodlands, will be determined by the unmanaged understorey rather than either the canopy (drip line) or the trunk (AS 3959:2018, clause C2.2.5).

Measured Separation Distance as a Calculation Input

If a separation distance can be measured because the location of the building/structure relative to the edge of the relevant classified vegetation is known, this figure can be entered into the BAL calculation. The result is a determined BAL rating.

Assumed Separation Distance as a Calculation Input

When the building/structure location within the lot is not known, an assumed building location may be applied that would establish the closest positioning of the building/structure relative to the relevant area of vegetation.

The assumed location would be based on a factor that puts a restriction on a building location such as:

- An established setback from the boundary of a lot, such as a residential design code setback or a restrictive covenant; or
- Within an established building envelope.

The resultant BAL rating would be indicative and require later confirmation (via a Compliance Report) of the building/structure actual location relative to the vegetation to establish the determined BAL rating.

Separation Distance as a Calculation Output

With the necessary site specific assessment inputs and using the AS 3959:2018 bushfire modelling equations, the range of separation distances that will correspond to each BAL rating (each of which represents a range of radiant heat flux), can be calculated. This has application for bushfire planning scenarios such as:

- When the separation distance cannot be measured because the exact location of the exposed element (i.e., the building, structure or area), relative to classified vegetation, is yet to be determined.

In this scenario, the required information is the identification of building locations onsite that will correspond to each BAL rating. That is, indicative BAL ratings can be derived for a variety of potential building/structure locations; or

- The separation distance is known for a given building, structure or area (and a determined BAL rating can be derived), but additional information is required regarding the exposure levels (to the transfer of radiant heat from a bushfire), of buildings or persons, that will exist at different points within the subject site.

The calculated range of separation distances corresponding to each BAL rating can be presented in a table and/or illustrated as a BAL Contour Map – whichever is determined to best fit the purpose of the assessment.

For additional information refer to the information boxes in Section 3 'Bushfire Attack Levels (BAL) - Understanding the Results and Section 3.2. 'Interpretation of the BAL Contour Map'.

SITE ASSESSMENT DETAILS - EXPLANATION & JUSTIFICATION

For the subject development/use the applicable separation distances values are derived from calculations applying the assessed site data. They are an output value, not an input value and therefore are not presented or justified in this appendix.

The derived values are presented in Section 3, Table 3.1 and illustrated as a BAL contour map in Figure 3.2.

APPENDIX B: ADVICE - ONSITE VEGETATION MANAGEMENT - THE APZ

THE ASSET PROTECTION ZONE (APZ)

The APZ is an area surrounding a building/structure that is not vegetated and/or the retained or planted vegetation can be considered low threat based on flammability or moisture content characteristics or is actively managed to maintain minimal fuel loads. The primary objectives of establishing an APZ are:

1. Ensure a reduction in the exposure of the building/structure to bushfire direct attack mechanisms (threats) of flame contact, radiant heat transfer and ember attack, by establishing appropriate separation from the bushfire prone vegetation. The required APZ dimensions will be dependent on site specific conditions and the use of the site;
2. Ensure a reduction in the exposure of the building/structure to bushfire indirect attack mechanisms (threats) by:
 - Preventing surface fire spreading to the building/structure;
 - Minimising the potential for tree strike; and
 - Limiting the potential for consequential fire to impact the building/structure by eliminating, reducing and/or shielding consequential fire fuels. These fuels include accumulated debris, stored combustible/flammable items and constructed combustible items. Consequential fire, typically ignited by embers, is the primary cause of building loss in a bushfire event; and
3. To provide a defensible space for firefighting activities.

The Appendix B2 of the Guidelines provide guidance and requirements for meeting these objectives might be met (also refer to Appendix B2 in this BMP).

B1: The Asset Protection Zone (APZ) - Dimension and Location Requirements

PLANNING APPLICATION REQUIREMENTS VERSUS LANDOWNER IMPLEMENTATION REQUIREMENTS

ONE IDENTIFIES THE ABILITY OF DEVELOPMENT TO LIMIT EXPOSURE TO CERTAIN BUSHFIRE THREATS TO AN ACCEPTABLE LIMIT AND THE OTHER ESTABLISHES WHAT IS TO BE PHYSICALLY IMPLEMENTED SURROUNDING BUILDINGS/STRUCTURES

THE 'PLANNING BAL-29' APZ

For planning approval purposes, an assessment against the Bushfire Protection Criteria (Guidelines) is conducted. Element 2: Siting and design, essentially establishes that the APZ must be of sufficient size to ensure the radiant heat impact of a bushfire on existing or future habitable buildings (as applicable) does not exceed 29kW/m² (BAL-29).

The APZ must be able to be maintained in a low threat state and satisfy the following:

Dimensions: The minimum dimensions of the 'Planning BAL-29' APZ are those that will ensure the potential radiant heat impact on the relevant buildings does not exceed 29 kW/m². These dimensions will vary dependent on the site specific conditions.

Location: The 'Planning BAL-29' APZ dimensions must not extend past lot boundaries onto land the landowner has no responsibility for or control over. Limited exceptions include:

- When adjoining land is not vegetated (e.g., built out, roads, carparks, drainage systems, rock, water body etc.);
- When adjoining land does or will contain low threat vegetation (refer to Appendix B) and it can be justified that enforceable mechanisms are in place to ensure the APZ status of this land will exist in perpetuity. Such areas of land include:
 - Publicly managed areas of vegetation (e.g., public open space, recreation grounds/areas and services installed in a common section of land). For certain situations, evidence of an entity's

enforceable requirement to manage these areas to the required standard would be included in either the BAL Assessment Report or Bushfire Management Plan;

- o Land on a neighbouring lot that is/will be part of the required APZ surrounding buildings/structures on that lot, and/or required firebreak, and for which the owner of that lot has a recognised responsibility to implement and maintain.
- o Adjoining land for which a formalised and enforceable authority and responsibility is created for the owner of the lot on which development is proposed, or another third party, to manage vegetation in perpetuity, on land they do not own. This is not common, and the necessary evidence of the responsibility would be included in the BAL Assessment Report or Bushfire Management Plan.

KEY POINT

The 'Planning BAL-29' APZ dimensions are not necessarily those that must be physically implemented and maintained by a landowner. Implementation requirements may be different (see 'Determined BAL Rating APZ' below).

The purpose of identifying the ability of proposed development to apply the 'Planning BAL-29' APZ dimensions is solely to inform decision makers as to the ability of the proposed building works to limit exposure to certain bushfire threats (flame contact, radiant heat transfer and ember attack), to the extent represented by a BAL-29 rating.

Note for certain vulnerable land uses, evidence of the ability to implement a larger APZ may be required to inform planning decisions. These include dimensions corresponding to radiant heat impact levels of 10 kW/m² and/or 2 kW/m² and calculated using a flame temperature of 1200 K – rather than 29kW/m² at 1090 K.

THE 'DETERMINED BAL RATING' APZ

The dimensions associated with the 'Determined BAL Rating APZ' are derived for the specific site conditions and are to be physically implemented and maintained by the landowner. The rating also establishes the bushfire construction requirements for any new building works which results in the built resilience to bushfire threats corresponding to their distance from the bushfire hazard. Variations of these dimensions will only exist as the result of either:

- A requirement presented within an associated Bushfire Management Plan to increase the size of the APZ as part of an alternative solution, and which is subsequently approved by the decision maker; or
- A directive of the relevant Local Government through their annual Firebreak/Hazard Reduction Notice (see below) that results in a larger dimension.

The applicable 'determined' BAL rating is stated in the BAL Assessment Data section of the BAL Assessment Report or Bushfire Management Plan (when it is possible to be a 'determined' rather than 'indicative' value).

If an 'indicative' or 'conditional' rather than a 'determined' BAL rating is stated, the corresponding separation distances (dimensions) are just informative. Confirmation that the stated BAL rating (or a different rating) will apply, is still subject to either certain physical requirements being met or approval from relevant authorities for native vegetation removal is obtained (refer to explanatory information in Section 3).

Dimensions: The minimum dimensions of the 'BAL Rating APZ' will be those associated with the 'determined' BAL rating for the relevant buildings/structures and stated in the following Table B1.

Note for certain vulnerable land uses and relevant buildings/areas, the 'BAL Rating' APZ dimensions may be replaced with dimensions corresponding to the specific radiant heat impact levels of 10 kW/m² and 2 kW/m² and calculated using a flame temperature of 1200K – rather than 29kW/m² at 1090 K.

Location: As for the 'Planning BAL-29' APZ.

THE 'LOCAL GOVERNMENT' APZ

Certain Local Government's state the dimensions of the APZ that must be established surrounding buildings in their annual Firebreak/Hazard Reduction Notice. For certain vegetation/sites, based on environmental considerations, they may also establish a maximum allowable dimension, typically that corresponding to a BAL-29 rating.

THE 'REQUIRED' APZ

The dimensions associated with the 'Required' APZ are to be established and maintained by the landowner within the subject lot and surrounding the subject buildings/structures. The 'Required APZ' will be appropriately depicted in Reports and Plans on the Property Bushfire Management Statement when it is required to be included.

Dimensions: The 'Required APZ' dimensions are the minimum distances away from the subject building/structure that the APZ must extend towards each relevant area of classified vegetation (note: a distance may also be a maximum distance when relevant as an environmental constraint). These distances are stated in the following Table B1.

The dimensions to implement are determined by:

- A. Those associated with the 'Determined BAL APZ' for the subject building(s) when distances are greater than 'B' below (except when 'B' has established a maximum distance); or
- B. The 'Local Government' APZ' derived from their Firebreak/Hazard Reduction Notice when distances are greater than 'A' above, other than when a maximum distance is established, in which case this will apply; or
- C. A combination of 'A' and 'B' as they may apply to different areas of classified vegetation.

Location: As for the 'Planning BAL-29' APZ.

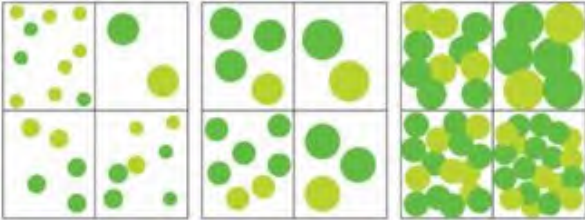
Table B1: The APZ dimensions required to be implemented and maintained by the landowner.

ESTABLISHING THE 'REQUIRED' APZ DIMENSIONS TO BE IMPLEMENTED AND MAINTAINED BY LANDOWNER WITHIN THEIR LOT									
Relevant Buildings(s)	Vegetation Classification		MINIMUM REQUIRED SEPARATION DISTANCES BETWEEN BUILDING/STRUCTURE AND BUSHFIRE PRONE VEGETATION ¹						
			Dimensions Associated with the 'BAL Rating' APZ			Dimensions Associated with the 'Local Government' APZ		The 'Required' APZ Dimensions ³	Existing Separation Distances
			Potential Bushfire Impact ²			Separation Distance	Local Government BAL-29 Firebreak / Hazard Reduction Notice		
	Area	Class	Stated As	Value	Status	metres	metres	metres	metres
Caravan and camping sites	1	(A) Forest	BAL Rating	BAL-29	Indicative	Ref: Fig 3.1	21m	21m	Ref Fig 3.1
	2	(B) Woodland	BAL Rating	BAL-29	Indicative		14m	14m	
	3	(D) Scrub	BAL Rating	BAL-29	Indicative		13m	13m	
	4	(D) Scrub	BAL Rating	BAL-29	Indicative		13m	13m	
	5	(G) Grassland	BAL Rating	BAL-29	Indicative		8m	8m	
	6	Excluded, clauses 2.2.3.2 (e) & (f)	-	-	-	-	-	-	-
Note 1: Refer to all explanatory information on the preceding pages. Note 2: For the bushfire direct attack mechanisms of flame contact, radiant heat transfer and, to some extent, ember attack. Note 3: These are minimum distances unless a maximum is being applied by a local government.									
Comments: The Local Government requires a BAL-29 APZ around all caravan and camping sites.									

B2: APZ Technical Requirements Established by the Guidelines (DPLH/WAPC)

Within the Guidelines the APZ requirements are established in Appendix B2: Siting and Design. This includes Table 9 reproduced below.

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%
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.

Shrub* and scrub* (0.5 metres to six metres in height). Shrub and scrub >6 metres 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 >5 square metres in area. • Clumps should be separated from each other and any exposed window or door by at least 10 metres.
Ground covers* (<0.5 metres in height. Ground covers >0.5 metres in height are to be treated as shrubs)	• 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 >100 millimetres in height.
Grass	• Grass should be maintained at a height of 100 millimetres 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 covers, grass and non-combustible mulches as prescribed above.
LP Gas Cylinders	• Should be located on the side of a building furthest 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.

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

B3: APZ Technical Requirements Established by the Local Government

Refer to the firebreak / hazard reduction notice issued annually (under s33 of the Bushfires Act 1954) by the relevant local government. It may state Standards that vary from those established by the Guidelines and that have been endorsed by the WAPC in accordance with Section 3.4 of the Guidelines.

A copy of the applicable notice is not included here as they are subject to being reviewed and modified prior to issuing each year. Refer to ratepayers' notices and/or the local government's website for the current version.

B4: Vegetation Excluded from Classification & Ensuring Continued Low Threat Status

EXPLANATORY NOTES

When applying AS 3959:2018 BAL determination methodology, vegetation adjoining or adjacent to the subject site can be excluded from classification based on being 'low threat'. To maintain this status, certain requirements must continue to be met in accordance with the below extract from AS3959:2018. Refer to the 'Classified Vegetation and Topography Map' for the relevant low threat areas associated with the subject site.

Determination of 'low threat' vegetation is based on factors such as:

- Proximity to the subject site
- Small areas of vegetation
- Low flammability
- High moisture content
- Low fuel load

Aside from a naturally occurring low fuel load, vegetation maintained in a minimal fuel condition through active management can be excluded. The associated key requisite is that the active management can be expected to continue in perpetuity, and this can be adequately justified.

Acceptable forms of justification typically involve supportable evidence or the existence of an enforceable mechanism. Examples of enforceable mechanisms include:

- Requirements established by a Section 33 (Bush Fires Act 1954) notice issued by a local government;
- An appropriate and enforceable agreement between relevant parties (which may involve additions to land titles); and
- For public open space, written evidence that the land manager e.g., local government or State Government Department, agrees to maintain the public open space in a low threat state in perpetuity.

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2.2.3.2 Exclusions—Low threat vegetation and non-vegetated areas

The following vegetation shall be excluded from a BAL assessment:

- (a) Vegetation of any type that is more than 100 m from the site.
- (b) Single areas of vegetation less than 1 ha in area and not within 100 m of other areas of vegetation being classified vegetation.
- (c) Multiple areas of vegetation less than 0.25 ha in area and not within 20 m of the site, or each other or of other areas of vegetation being classified vegetation.
- (d) Strips of vegetation less than 20 m in width (measured perpendicular to the elevation exposed to the strip of vegetation) regardless of length and not within 20 m of the site or each other, or other areas of vegetation being classified vegetation.
- (e) Non-vegetated areas, that is, areas permanently cleared of vegetation, including waterways, exposed beaches, roads, footpaths, buildings and rocky outcrops.
- (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, sporting fields, vineyards, orchards, banana plantations, market gardens (and other non-curing crops), cultivated gardens, commercial nurseries, nature strips and windbreaks.

NOTES:

- 1 Minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bushfire attack (recognizable as short-cropped grass for example, to a nominal height of 100 mm).
- 2 A windbreak is considered a single row of trees used as a screen or to reduce the effect of wind on the leeward side of the trees.

B4: Landscape Management Plan

LANDSCAPE MANAGEMENT PLAN					
No.	Implementation Action	Timing	Responsibility	Clearance	Comment
1	Maintain compliance with the DFES Fact Sheet – "Preparing Your Property"	Ongoing in Perpetuity	Landowner	☐	
2	A minimum 20 metre APZ (Figure 3.1) will be installed and maintained around the caravan and camp sites in accordance with the BMP. TREES: (> 5m in height): trunks at maturity should be a minimum distance of 6 metres from any building, branches at maturity should not touch or overhang any building, lower branches should be removed to a height of 2m above the ground and or surface vegetation, canopy cover should be less than 15% with tree canopies at maturity well spread to at least 5m apart as to not form a continuous canopy. SHRUBS: No tall shrubs or trees should be located within two (2) metres of any building (unless reticulated – managed gardens). SHRUBS & GROUND COVERS: (0.1 metres to 5 metres) Should not be located under trees or within 3 metres of any building, should not be planted in clumps greater than 5m² in area, clumps of shrubs should be separated from each other. Shrubs >than 5 metres in height are to be treated as trees. (unless reticulated – managed gardens).	Ongoing in Perpetuity	Landowner	☐	
3	Building gutters and rooftops are to be free of excessive twigs, leaves, grass etc.	Every 3 months	Landowner	☐	
4	All overhanging branches, trees, limbs etc. trimmed back from the firebreak/ driveways to a minimum height of four (4) metres.	Every 12 months	Landowner	☐	
5	Eucalypt windbreak on the western side of the caravan and camping area to be managed in perpetuity. Under-pruning of branches, cleaning up of fallen branches and mowing of grass between trees to ensure area is Excludable.	Every 3 months	Landowner	☐	

APPENDIX C: TECHNICAL REQUIREMENTS FOR VEHICULAR ACCESS

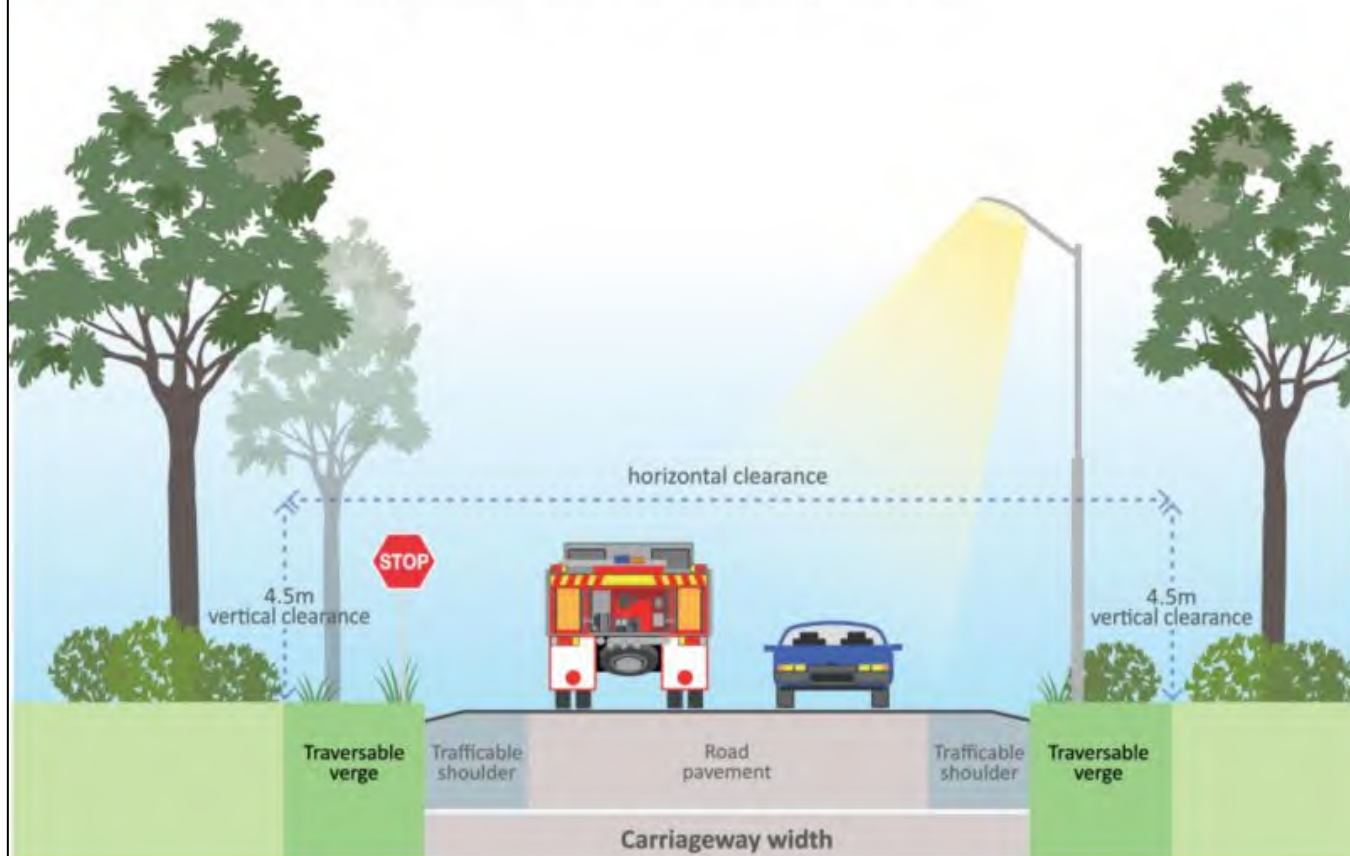
The Planning for Bushfire Guidelines (DPLH/WAPC) (as amended), can be sourced online and establishes:

- In sections 5 to 8, The vehicular access acceptable solutions (corresponding to a planning stage and land use type), that will achieve the required outcomes of State Planning Policy Bushfire 3.7 (SPP 3.7); and
- In Appendix B3, the vehicular access components technical requirements and general considerations.

Common requirements are presented in this appendix. Reference the Guidelines for specific requirements.

ROAD COMPONENT TERMINOLOGY

Figure 26: Area encompassing horizontal clearance and vertical clearance



Horizontal clearance: The carriageway width (including the road pavement and trafficable shoulder) and traversable verge that provides for the movement and parking of vehicles and area required by emergency services to operate. Infrastructure and vegetation within the traversable verge should be frangible, however, non-frangible items can occur providing they do not restrict vehicular movement in the event of an emergency.

VEHICULAR ACCESS TECHNICAL REQUIREMENTS

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°)					
1:7 (14.3% or 8°)										
1:10 (10% or 6°)										
8.5										
Maximum grade sealed road ^{2,4}										
Maximum average grade sealed road										
Minimum inner radius of road curves (metres)										

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.

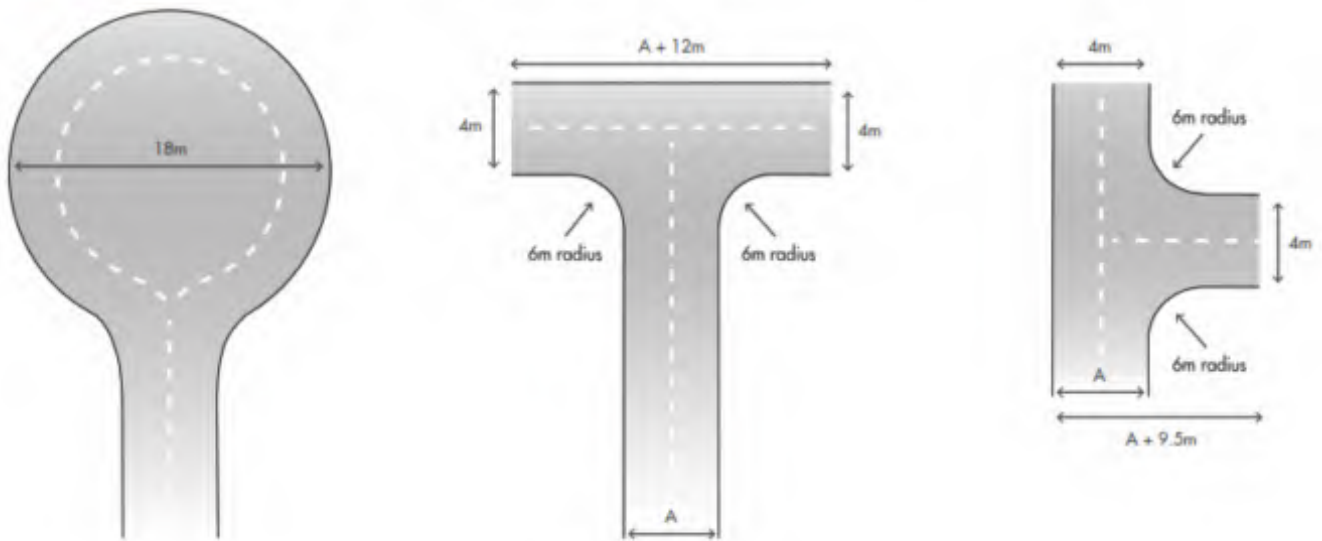
³ To have crossfalls between 3 per cent and 6 per cent.

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.

TURN-AROUND AREA – DESIGN REQUIREMENTS

Figure 30: Design requirements for a turn-around area



APPENDIX D: TECHNICAL REQUIREMENTS FOR FIREFIGHTING WATER SUPPLY

The Planning for Bushfire Guidelines (DPLH/WAPC) (as amended), can be sourced online and establishes:

- In sections 5 to 8, The water supply acceptable solutions (corresponding to a planning stage and land use type), that will achieve the required outcomes of State Planning Policy Bushfire 3.7 (SPP 3.7): and
- In Appendix B4, the water supply technical requirements and general considerations.

The information provided in this Appendix is additional to that provided in the Guidelines. It includes:

- For reticulated water supply, the hydrant location specifications established by the WA Water Corporation (Design Standard DS 63), as dependant on land use type and relevant to bushfire planning assessments (highlighted). Note: the maximum distance from a hydrant to the rear of a lot/building is generally interpreted as not applicable to large lot sizes where the maximum distance becomes an impractical limitation i.e., typically rural residential areas; and
- Images of example installations of acceptable water supply tanks and outlet fittings.

D1: Hydrant Location in Reticulated Areas

Design Standard DS 63
Water Reticulation Standard



2.2.1.5 Appurtenances

c. Hydrants

Hydrants shall be screw-down hydrant with built-in isolation valve and installed only on DN100 or larger pipes. Hydrants shall be located:

- so that the maximum distance between a hydrant and the rear of a building envelope, (or in the absence of a building envelope the rear of the lot) shall be 120m;
- so that spacing (as measured by hose-run) between hydrants in non-residential or mixed use areas shall be maximized and no greater than 100m;
- so that spacing (as measured by hose-run) between hydrants in residential areas with lots per dwelling <10,000m² shall be maximized and no greater than 200m;
- so that spacing between hydrants (as measured by hose-run) in rural residential areas where minimum lots per dwelling is >10,000 m² (1ha) shall be maximized and no greater than 400m;
- centrally along the frontage of a lot to avoid being under driveways, unless the lot features a frontage 6m or less, in which case it shall be placed to the side opposite the driveway;
- at lots that have the widest frontage in the local area;
- where appropriate at the truncation of road junctions or intersections so that they can serve more than one street and can be readily located;
- on both sides of the major roads at staggered intervals where there are mains on both sides of the road;
- at major intersections on dual multi-lane roads, where two hydrants are to be sited on diagonally opposite corners;
- hydrants should be located at least 20m from traffic calming devices i.e. median slow points or chokers, chicanes, mini traffic circles, and intersection 'pop-outs' to ensure traffic is not impeded;
- in a position not less than 10m from any high voltage main electrical distribution equipment such as transformers and distribution boards, liquefied petroleum gas or other combustible storage
- directly on top of the main using a tee unless proved to be impractical

D2: Example Water Supply Tank and Outlet Fittings

	
Strategic 47,000 Litre Concrete Tank & Protected Fittings	
	
10,000 Litre Concrete Tank	Storz and Camlock Couplings
	
Full Flow 50mm Ball Valve	Full Flow 50mm Gate Valve and Male Camlock

ADDENDUM:

AS 3959:2018 Construction of buildings in bushfire prone areas

https://infostore.saiglobal.com/en-au/standards/as-3959-2018-122340_saig_as_as_2685241/

Planning for Bushfire Guidelines; Department of Planning, Lands and Heritage

https://www.planning.wa.gov.au/docs/default-source/policy/planning-for-bushfire-guidelines---state-planning-policy-3-7-bushfire.pdf?sfvrsn=bf2cc624_4

Shire of Nannup Bushfire Risk Compliance Notice

https://www.nannup.wa.gov.au/Profiles/nannup/Assets/ClientData/Communications_Officer_Documents/Fire___Emergency/Bushfire_Risk_Compliance_Notice_2024-25.pdf

Shire of Nannup Local Planning Strategy 2018

https://www.nannup.wa.gov.au/Profiles/nannup/Assets/ClientData/Document-Centre/2018/Planning/LPS_FINAL_ENDORSED__Dec_2018_.pdf

https://www.nannup.wa.gov.au/Profiles/nannup/Assets/ClientData/Document-Centre/2018/Planning/02__Strategy_Plan_North_FINAL.pdf

SPP 3.7 2024; Department of Planning, Lands and Heritage

<https://www.planning.wa.gov.au/state-planning-policy-3.7-bushfire>

WA Caravan Parks and Camping Grounds Regulations 1997

https://www.legislation.wa.gov.au/legislation/statutes.nsf/main_mrtitle_1204_homepage.html