## Attachment 11.1.3



Fire Protection Association Australia

Life. Property. Environment.

**Bushfire Management Plan and Site Details** 



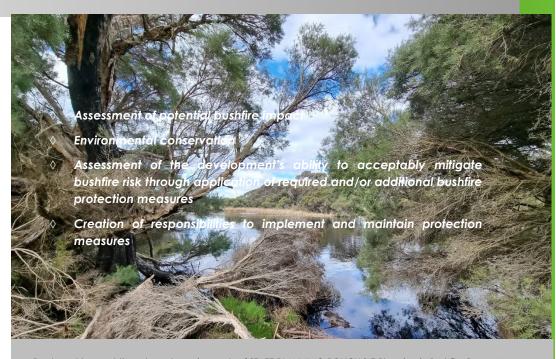
# **Bushfire Management Plan Coversheet**

This Coversheet and accompanying Bushfire Management Plan has been prepared and issued by a person accredited by Fire Protection Association Australia under the Bushfire Planning and Design (BPAD) Accreditation Scheme.

Site Address / Plan Reference: Lot 13 on Diagram 06952	7 25 Woodarburrup Road,				
Suburb: Scott River East		State	: WA	P/co	<b>de:</b> 6275
Local government area: Shire of Nannup					
Description of the planning proposal: Development Appli	cation				
BMP Plan / Reference Number: 230559	Version: v1.0		Date of	<b>Issue:</b> 20/0	9/2023
Client / Business Name: Dunmore Farm: Kristy Thompson					
Reason for referral to DFES				Yes	No
Has the BAL been calculated by a method other than method 1 has been used to calculate the BAL)?	method 1 as outlined in A	S3959 (tick no if AS3	959		×
Have any of the bushfire protection criteria elements principle (tick no if only acceptable solutions have been	_	•	ance		
Is the proposal any of the following special developr	nent types (see SPP 3.7 fc	or definitions)?			
Unavoidable development (in BAL-40 or BAL-FZ)					$\boxtimes$
Strategic planning proposal (including rezoning applic	ations)				×
Minor development (in BAL-40 or BAL-FZ)					$\boxtimes$
High risk land-use					
Vulnerable land-use					
If the development is a special development type as above listed classifications (E.g. considered vulnerable)					
The site is considered as Vulnerable Use as the property is s	hort stay accommodation for	tourists.			
Note: The decision maker (e.g. local government or	the WAPC) should only re	fer the proposal to I	OFES for o	comment if	one (or
more) of the above answers are ticked "Yes".					
BPAD Accredited Practitioner Details and Declar	ration				
Name	Accreditation Level	Accreditation No.		ccreditation	Expiry
Kathy Nastov  Company	Level 3	BPAD27794  Contact No.	01	1/08/2024	
Bushfire Prone Planning		64771144			
I declare that the information provided within this b	ushfire management plar	ı is to the best of my	knowled	dge true an	d correct
Signature of Practitioner		Date 20	/09/2023		
organizate of Franciscones		Date			



# Bushfire Management Plan (BMP)



Produced to meet the relevant requirements of STATE PLANNING POLICY 3.7 Planning in Bushfire Prone Areas & associated Guidelines.

Dunmore Farm, 25 Woodarburrup Coast Road, Scott River East

**Shire of Nannup** 

Local Government Compliance -Vulnerable Tourism Land Use

20 September 2023

Job Reference No: 230559

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**Limitations:** The protection measures contained 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 recommended protection 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.

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#### THIS DOCUMENT - STATEMENT OF PURPOSE

#### The Bushfire Management Plan (BMP)

The BMP sets out the required package of bushfire protection measures to lessen the risks associated with a bushfire event. It establishes the responsibilities to implement and maintain these measures.

The BMP also identifies the potential for any negative impact on any environmental, biodiversity and conservation values that may result from the application of bushfire protection measures or that may limit their implementation.

#### **Risks Associated with Bushfire Events**

The relevant risks are the potential for loss of life, injury, or destroyed or damaged assets which results in personal loss and economic loss. For a given site, the level of that risk to persons and assets (the exposed elements) is a function of the potential threat levels generated by the bushfire hazard, and the level of exposure and vulnerability of the at risk elements to the threats.

#### **Bushfire Protection Measures**

The required package of protection measures is established by *State Planning Policy 3.7 Planning in Bushfire Prone Areas (SPP 3.7)*, its associated *Guidelines* and any other relevant guidelines or position statements published by the Department of Planning, Lands and Heritage. These measures are limited to those considered by the WA planning authorities as necessary to be addressed for the purpose of <u>land use planning</u>. They do not encompass all available bushfire protection measures as many are not directly relevant to the planning approval stage. For example:

- Protection measures to reduce the vulnerability of buildings to bushfire threats is primarily dealt with at the
  building application stage. They are implemented through the process of applying the Building Code of
  Australia in accordance with WA building legislation and the application of construction requirements
  based on a building's level of exposure determined as a Bushfire Attack Level (BAL) rating); or
- Protection measures to reduce the threat levels of consequential fire (ignited by bushfire and involving combustible materials surrounding and within buildings) and measures to reduce the exposure and vulnerability of elements at risk exposed to consequential fire, are not specifically considered.

The package of required bushfire protection measures established by the Guidelines includes:

- The requirements of the bushfire protection criteria which consist of:
  - Element 1: Location (addresses threat levels).
  - Element 2: Siting and Design of Development (addresses exposure levels of buildings).
  - Element 3: Vehicular Access (addresses exposure and vulnerability levels of persons).
  - Element 4: Water (addresses vulnerability levels of buildings).
  - Element 5: Vulnerable Tourism Land Uses (addresses exposure and vulnerability as per Elements 1-4 but in use specific ways and with additional considerations of persons exposure and vulnerability).
- The requirement to develop Bushfire Emergency Plans / Information for 'vulnerable' land uses for persons to prepare, respond and recover from a bushfire event (this addresses vulnerability levels).
- The requirement to assess bushfire risk and incorporate relevant protection measures into the site emergency plans for 'high risk' land uses (this addresses threat, exposure and vulnerability levels).

#### Compliance of the Proposed Development or Use with SPP 3.7 Requirements

The BMP assesses the capacity of the proposed development or use to implement and maintain the required 'acceptable' solutions and any additionally recommended bushfire protection measures - or its capacity to satisfy the policy intent through the justified application of additional bushfire protection measures as supportable 'alternative' solutions.



THE	PROPOSED DEVELOPMENT/USE – BUSHFIRE PLANNING COMPLIANCE SUMMARY					
	Environmental Considerations	Assessment Outcome				
	Will identified environmental, biodiversity and conservation values limit the full application of the equired bushfire protection measures?					
	Will identified environmental, biodiversity and conservation values need to be managed in the implementation and maintenance of the bushfire protection measures - but not limit their application?					
	Required Bushfire Protection Measures					
The Ac	ceptable Solutions of the Bushfire Protection Criteria (Guidelines)	Assessment Outcome				
Element	The Acceptable Solutions					
	A5.7a Siting and design – APZ – caravan park	N/A				
	A5.7b Siting and design – APZ – certain accommodation	N/A				
	A5.7c Siting and design – APZ – all other accommodation	Fully Compliant				
	A5.7d Siting and design – APZ – landscape management	N/A				
	A5.7e Siting and design – onsite shelter – pedestrian paths	N/A				
	A5.7f Siting and design – onsite shelter – exposure to hazard	N/A				
	A5.7g Siting and design – onsite shelter – construction requirements.	N/A				
	A5.8.1a Vehicular access – internal access/private driveway - availability	Fully Compliant				
Other Short Term	A5.8.1b Vehicular access – internal access/private driveway – tech. req.	Fully Compliant				
Accommodation	A5.8.1c Vehicular access – signage	Fully Compliant				
	A5.8.2a Vehicular access – multiple access routes	Fully Compliant				
	A5.8.2b Vehicular access – no-through roads – maximum length					
	A5.8.2c Vehicular access – EAW – alternative access option	N/A				
	A5.8.2d Vehicular access – public roads - technical requirements	Fully Compliant				
	A5.8.2e Vehicular access – access limitations - onsite shelter option	N/A				
	A5.9a Provision of water - reticulated	N/A				
	A5.9b Provision of water – non-reticulated	Fully Compliant				
Camping Ground Only (remote) or	A5.10a Siting and design – reduce exposure to radiant heat (separation)	Fully Compliant				
Nature-Based Park	A5.10b Siting and design – fire pits	Fully Compliant				



	A5.10c Siting and design – onsite shelter – pedestrian paths	N/A				
	A5.10d Siting and design – onsite shelter – open area	N/A				
	A5.11a Vehicular access – multiple access routes  A5.11b Vehicular access – no-through roads – maximum length					
	A5.11c Vehicular access – EAW – alternative access option	Fully Compliant				
	A511d Vehicular access – access limitations - onsite shelter option	N/A				
	A5.11e.1a Vehicular access – internal access/private driveway - availability	Fully Compliant				
	A5.11f Vehicular access – internal access/private driveway – tech. req.	Fully Compliant				
	A5.11g Vehicular access – signage	Fully Compliant				
	A5.12a Provision of water – no supply required	N/A				
	A5.12b Provision of water – non-reticulated	Fully Compliant				
	A5.12c Provision of water – non-reticulated technical requirements	Fully Compliant				
Rural Produce Store (day use only)	A5.13a Siting and design – APZ	Fully Compliant				
	A5.13b Siting and design – onsite shelter – pedestrian paths	N/A				
	A5.13c Siting and design – onsite shelter – exposure to hazard	N/A				
	A5.13d Siting and design – onsite shelter – construction requirements.	N/A				
	A5.14a Vehicular access – multiple access routes	Fully Compliant				
	A5.14b Vehicular access – no-through roads – maximum length	Fully Compliant				
	A5.14c Vehicular access – EAW – alternative access option	N/A				
	A514d Vehicular access – access limitations - onsite shelter option	N/A				
	A5.14e Vehicular access – public roads - technical requirements	Fully Compliant				
	A5.14f Vehicular access – internal access/private driveway – tech. req.	Fully Compliant				
	A5.14g Vehicular access – internal access/private driveway - availability	Fully Compliant				
	A5.14h Vehicular access – signage	Fully Compliant				
	A5.15a Provision of water – reticulated	N/A				
	A5.15b Provision of water – non-reticulated – tank capacity	Fully Compliant				



A5.15c Provision of water – non-reticulated technical requirements

Fully

Compliant



#### 1 PROPOSAL DETAILS AND THE BUSHFIRE MANAGEMENT PLAN

## 1.1 The Proposed Development/Use Details, Plans and Maps

Planning Stage:	Development Application
The stated bushfire planning land use for which additional assessments and documents are required, will apply.	Vulnerable Tourism Land Use
	The proposed development is a land use that can be categorised as a:
Factors that have identified the proposal's bushfire planning land use classification:	Short term accommodation (other than B&B/Holiday House) including motel, serviced apartments, tourist development (includes cabins and chalets), holiday accommodation and caravan park (which incorporates camping grounds).  Camping ground only (remote) or nature-based park.  The proposed land use for tourism or recreation involves visitors who are unfamiliar with the surroundings and/or presents evacuation challenges.
Subject lot/site total area:	45.4086 ha
Number of additional lots being created:	N/A

Description of the proposed development/use:

This Bushfire Management Plan is being developed for Dunmore Farm, a feed lot and cattle farm that is seeking to establish a complimentary eco-tourism experience including a one-bedroom cottage, nature stay camping, a second seasonal nature stay camp area and a rural produce store. The proposed development site is at the entrance to the D'Entrecasteaux National Park and Black Point year-round access point.

The cottage is located adjacent to the main residence and the proposed Rural Produce Store will be located in front of the main homestead. This will also act as the check in for camping and cottage accommodation.

The proposed nature-stay camp area to the north east of the homestead will be located in existing paddocks (grassland vegetation). These camp areas will be fenced to manage existing land use activities.

The proposed seasonal nature-stay camp area is accessed from Milyeannup Coast Road and the driveway is through Water Corporation tenure. Due to crossing the Scott River this area could only be used during the summer months.

The property is located in an area of Extreme fire danger, with Forest and Scrub vegetation surrounding the development site on three sides. As a Tourism Land Use the proposed development is by default also considered a Vulnerable Land Use and the emphasis will be on early evacuation as the primary emergency procedure.

The BAL vegetation map has been derived for the proposed development on the subject site. The purpose is to inform future development planning by determining or indicating the Bushfire Attack Levels (BAL's) that future buildings, within the development site are potentially subject to.

The Shire of Nannup requires a 20m APZ around all buildings. Vegetation surrounding the cottage is maintained in an Excluded manner and work continues to reduce the canopy cover to the east.

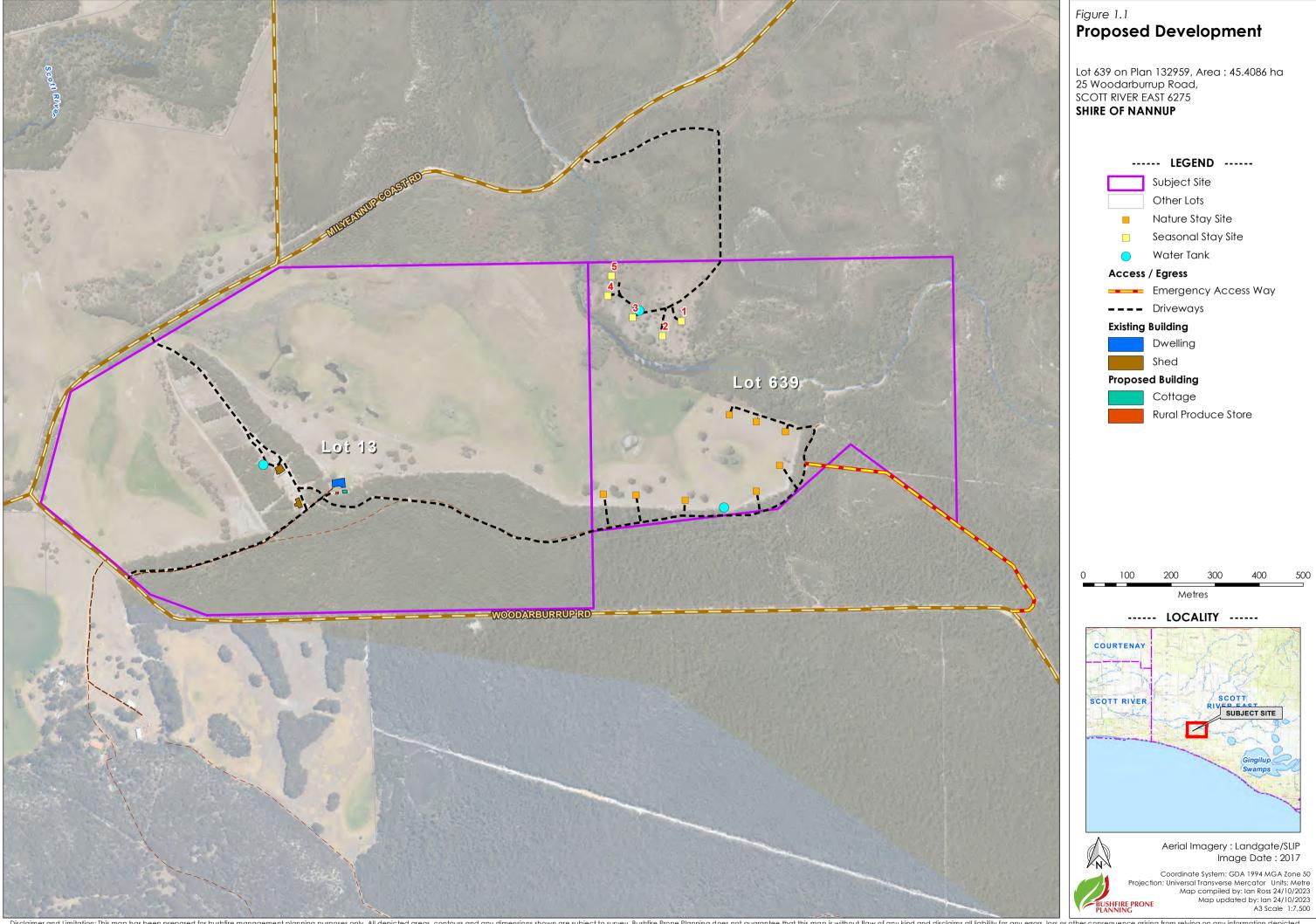
The proposal requires the application of State Planning Policy No. 3.7: Planning in Bushfire Prone Areas (SPP 3.7). The assessed bushfire risk is manageable and will be achieved by the identified stakeholders implementing and maintaining the bushfire risk management measures that are presented in this Plan.

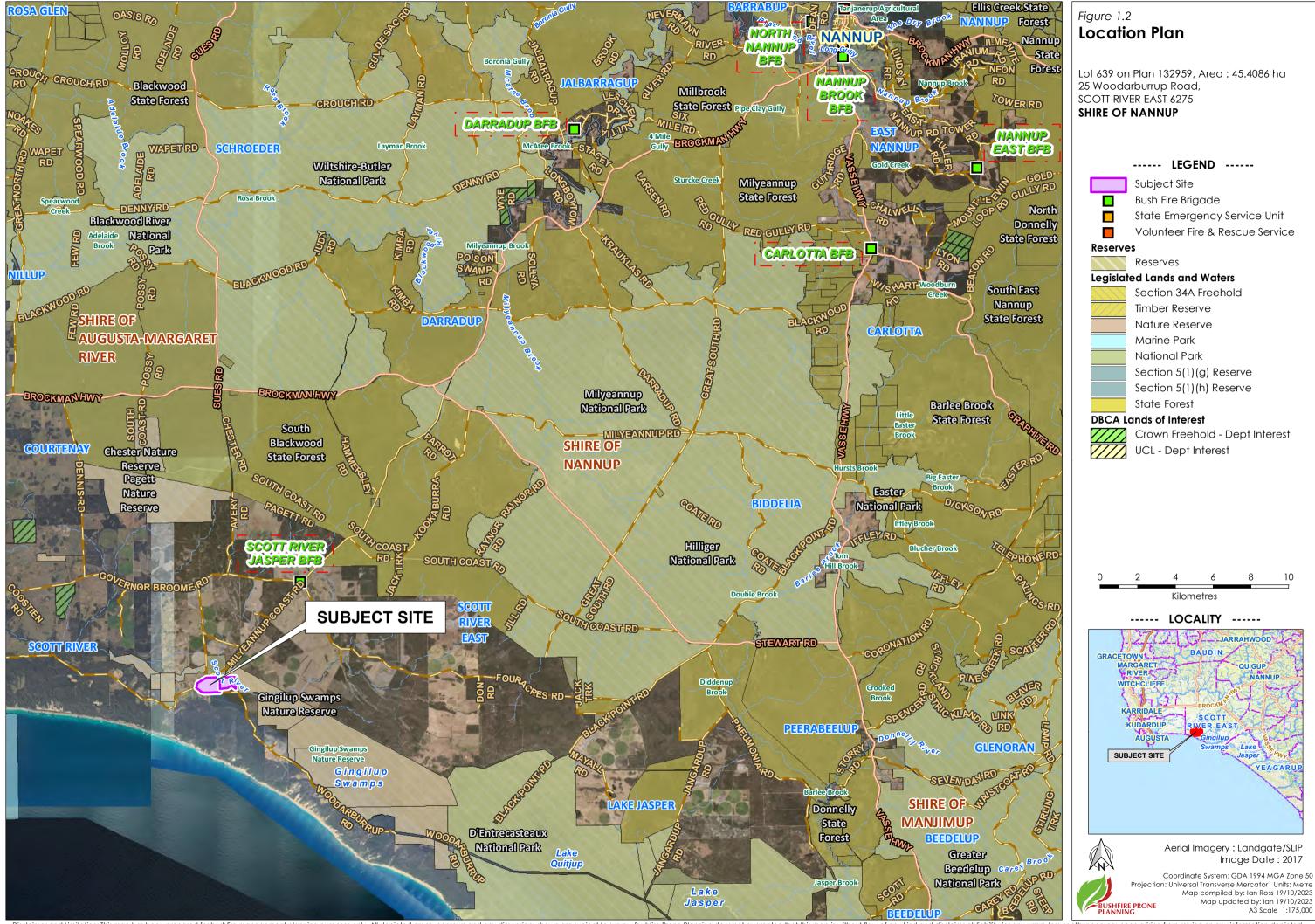


## Development and management of potential bushfire hazard issues:

25 Woodarburrup Coast Road is located along the Scott River Coastal Plain, within an Extreme fire danger area. The risk during the bushfire season comes from both the Forest and Scrub vegetation surrounding the property, and fire coming from the Gingilup Swamp, fuelled by strong Easterly winds.

Potential bushfire hazards identified include the remote location within a bushfire area. There are vast tracts of bushfire prone vegetation within 150 metre of the site boundary which represents an extreme bushfire risk. Visitors may not be familiar with the terrain and speed at which a bushfire can travel through the region, due to the vegetation type.





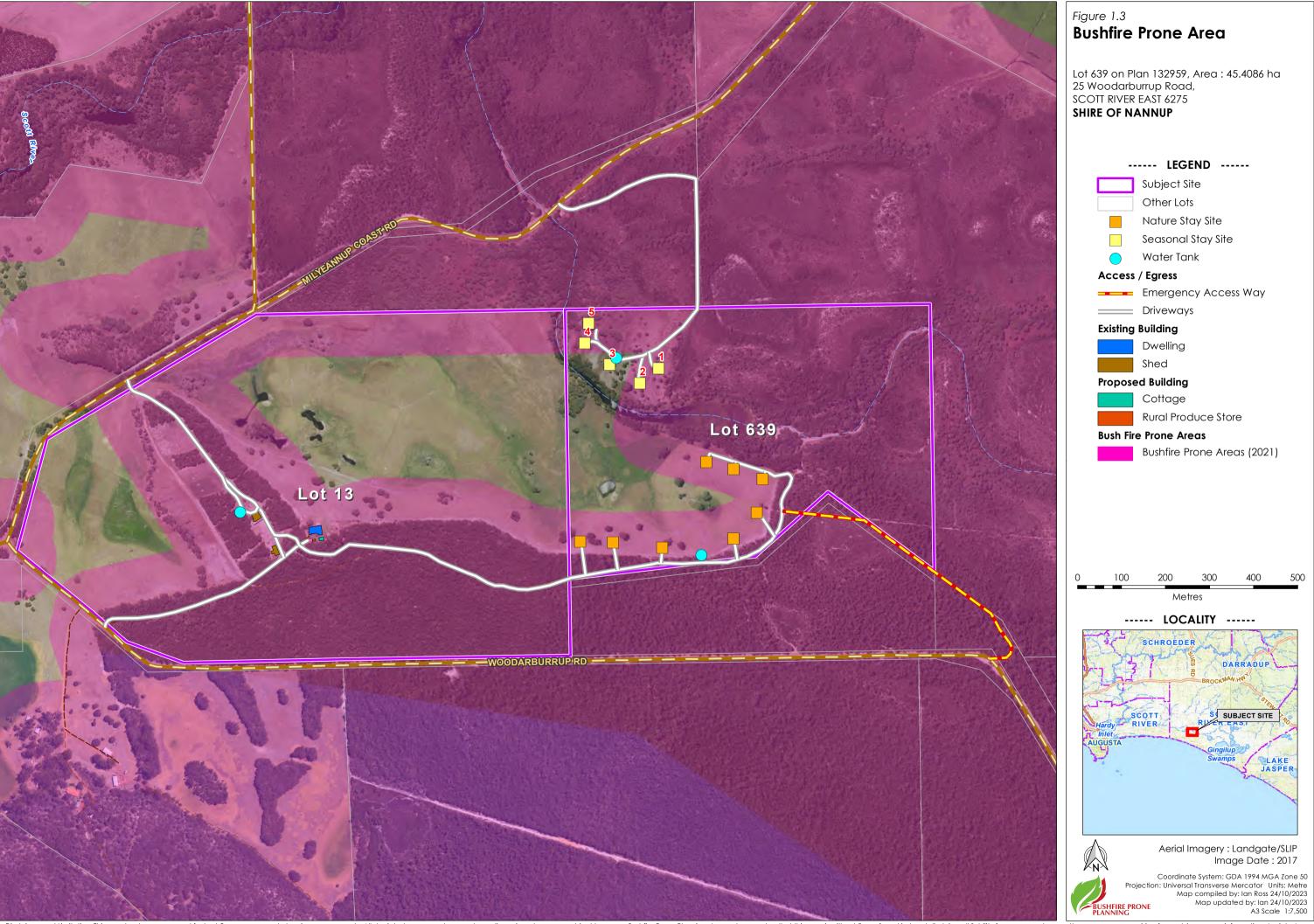


#### WHERE SPP 3.7 AND THE GUIDELINES ARE TO APPLY – DESIGNATED BUSHFIRE PRONE AREAS

All higher order strategic planning documents, strategic planning proposals, subdivisions and development applications located in designated bushfire prone areas need to address SPP 3.7 and its supporting Guidelines. This also applies where an area is not yet designated as bushfire prone but is proposed to be developed in a way that introduces a bushfire hazard.

For development applications where only part of a lot is designated as bushfire prone and the proposed development footprint is wholly outside of the designated area, the development application will not need to address SPP 3.7 or the Guidelines. (Guidelines DPLH 2021 v1.4, s1.2).

For subdivision applications, if all the proposed lots have a BAL-LOW indicated, a BMP is not required. (Guidelines DPLH 2021 v1.4, s5.3.1).





## 1.2 The Bushfire Management Plan (BMP)

#### 1.2.1 Commissioning and Purpose

Landowner / proponent:	Dunmore Farm
Bushfire Prone Planning commissioned to produce the BMP by:	kristythompson510@gmail.com
Purpose of the BMP:	To apply the requirements established by State Planning Policy 3.7: Planning in Bushfire Prone Areas (SPP 3.7) and accompany the development application.
BMP to be submitted to:	Shire of Nannup

### 1.2.2 Other Relevant Documentation - Existing or Concurrently Developed

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 site and the proposal/application. They potentially have implications for the assessment of bushfire threats and the implementation of the protection measures that are dealt with in the Bushfire Management Plan.

Table 1.1: Existing or concurrently developed relevant documentation.

RELEVANT DOCUMENTS							
Existing Document	Relevant to the Proposal and the BMP	Copy Provided by Proponent / Developer	Title				
Structure Plan	No	N/A	-				
Bushfire Management Plan	No	N/A					
Bushfire Emergency Plan or Information	No	N/A					
Bushfire Emergency Plan Supporting Information	No	N/A					
Bushfire Risk – Assessment and Management Report	No	N/A					
Environmental Asset or Vegetation Survey	No	N/A	-				
Landscaping (Revegetation) Plan	No	N/A	-				
DPLH BMP Guidance 'Regions & Uses'	No	N/A	-				



## 2 ENVIRONMENTAL CONSERVATION (DESKTOP ASSESSMENT)

**Important:** This 'desktop' assessment must not be considered as a replacement for a full Environmental Impact Assessment. It is a summary of potential environmental values at the subject site, inferred from information contained in listed datasets and/or reports, which are only current to the date of last modification.

These data sources must be considered indicative where the subject site has not previously received a site-specific environmental assessment by an appropriate professional.

Many bushfire prone areas also have high biodiversity values. Consideration of environmental priorities within the boundaries of the land being developed can avoid excessive or unnecessary modification or clearing of vegetation. Approval processes (and exemptions) apply at both Commonwealth and State levels.

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 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 Regulations (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 Guidelines v1.4, the Bushfire and Vegetation Factsheet - WAPC, Dec 2021 and <a href="https://www.der.wa.gov.au/our-work/clearing-permits">https://www.der.wa.gov.au/our-work/clearing-permits</a>

### 2.1 Existing Vegetation on Private Land

#### 2.1.1 Declared Environmentally Sensitive Areas (ESA)

Table 2.1: Identification of relevant ESA.

IDENTIFICATION OF ESA							
		Influence on Bushfire Threat		Informa Identifica			
ESA Class	Relevant to Proposal	Levels and / or Application of Bushfire Protection Measures	Relevant Dataset	Dataset	Landowner or Developer	Environmental Asset or Vegetation Survey	Further Action Required
Wetlands and their 50m Buffer (Ramsar, conservation category and nationally important)	Yes	Possible	DBCA-010 and 011, 019, 040, 043, 044	$\boxtimes$			See note below
Bush Forever	No	N/A	DPLH-022, SPP 2.8	$\boxtimes$			None



Threatened and Priority Flora + 50m Continuous Buffer	No	No	DBCA-036	Restricted Scale of		Confirm with relevant agency
Threatened Ecological Community	No	No	DBCA-038	Data Available (security)		Data not available - confirm with relevant agency
Heritage Areas National / World	No	No	Relevant register or mapping	$\boxtimes$		N/A
Environmental Protection (Western Swamp Tortoise) Policy 2002	No	No	DWER-062	$\boxtimes$		N/A

### DESCRIPTION OF THE IDENTIFIED AREA(S) OF VEGETATION

The relevant State agencies should be further consulted, and details confirmed as part of due diligence for the proposal. There are a number of Geomorphic Wetland areas within the development area. It would be recommended that campsite locations are moved if native vegetation is required to be cleared. Revised camp locations are outlined in Fig 3.1.1.

## 2.2 Post Development Vegetation - Planned Landscaping and/or Re-vegetation

Table 2.2: Identification of land subject to planned vegetation modification.

AREAS OF LAND PLANNED FOR RE-VEGETATION OR LANDSCAPING									
Land with Environmental, Biodiversity, Conservation and Social Values	Relevant to Proposal	Planned Vegetation Modification	Description						
Riparian Zones	No	N/A							
Foreshore Areas	No	N/A	-						
Wetland Buffers	No	N/A	-						
Legislated Lands	No	N/A	-						
Public Open Space	No	N/A	-						
Road Verges	No	N/A	-						

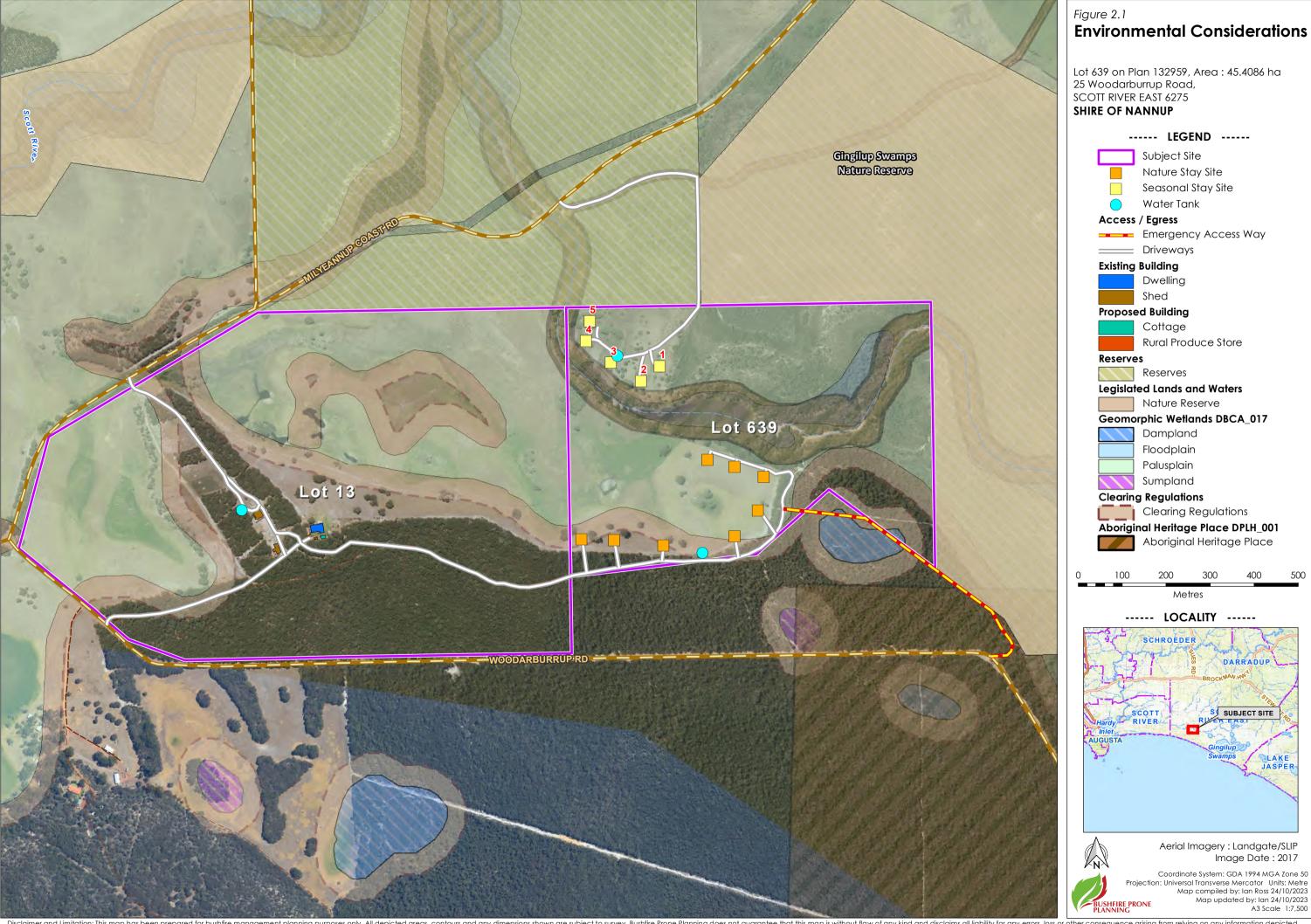
## 2.3 Identified Requirement for Onsite Vegetation Modification or Removal

IDENTIFICATION OF POTENTIAL NATIVE VEGETATION MODIFICATION OR REM	OVAL
Has a requirement to modify or remove native vegetation to establish the required bushfire protection measures on the subject site been identified?	Yes
Is evidence provided (from relevant agencies, the environmental or planning consultant and/or the local government), that the required modification or removal of the vegetation can be achieved?	No



## 2.4 Cultural Heritage

	IDENTIFIED AREAS OF LAND HERITAGE VALUE							
Land with Heritage Value	Relevant to Proposal	Description and Potential Impact on Implementation of Bushfire Protection Measures						
Aboriginal Heritage Places (DPLH)	No	The Scott River is a registered Aboriginal Heritage site, however this would not impact on the establishment of the campground.						
National Heritage List (Dept. of Agriculture, water and the Environment)	No							



## 3 BUSHFIRE ATTACK LEVEL (BAL) ASSESSMENT

#### **BUSHFIRE ATTACK LEVELS (BAL) - UNDERSTANDING THE RESULTS**

The transfer (flux/flow) of radiant heat from the bushfire to a receiving object is measured in kW/m<sup>2</sup>. 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 <u>can</u> 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 <u>cannot</u> 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 <u>determined</u> and <u>indicative</u> 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 <u>determined</u> BAL rating and the BAL Certificate is required for a building permit to be issued an <u>indicative</u> BAL rating is not acceptable.

## 3.1 BAL Assessment Summary (Contour Map Format)

## 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 dependent 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.

### 3.1.1 BAL Determination Methodology and Location of Data and Results

	LOCATION OF DATA & RESULTS									
BAL Deteri Method		Locatio	n of the Site A	Location of the Results						
	Classified		Calcula	tion Input Variables						
AS 3959:2018	Applied to Assessment	Vegetation and Topography Map(s)	Summary Data	Detailed Data with Explanatory and Supporting Information	Assessed Bushfire Attack Levels and/or Radiant Heat Levels					
Method 1 (Simplified)	Yes	Figure 3.1	Table 3.2	Appendix A1	Table 3.1 Table 3.2 / BAL Contour Map					
Method 2 (Detailed)	-	-	-	-	Table 5.2 / B/L Comod Map					



## 3.1.2 BAL Ratings Derived from the Contour Map

Table 3.1: Indicative and determined BAL(s) for future buildings/structures on the proposed lots.

BUSHFIRE ATTACK LEVEL FOR FUTURE BUILDINGS / STRUCTURES ON STATED LOT 1								
Assessment	Future Buildin	gs / Structure						
A33G33[1]G[1]	Indicative BAL <sup>2</sup>	Determined BAL <sup>2</sup>						
Cottage	N/A	BAL-29						
Campsites	BAL-29	BAL-29						
Seasonal campsites	BAL-29	BAL-29						
Rural produce store	BAL-29	BAL-29						

 $<sup>^{1}</sup>$  The assessment data used to derive the BAL ratings is sourced from Table 3.1 and Figure 3.2 'BAL Contour Map'.

## 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.						
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							

 $<sup>^2</sup>$  Refer to the start of Section 3 for an explanation of indicative versus determined BAL ratings.



Table 3.2: The calculation inputs applied to determining the site specific separation distances corresponding to levels of potential radiant heat transfer (including BAL's).

# COTTAGE & RURAL PRODUCE STORE SUMMARY OF CALCULATION INPUT VARIABLES APPLIED TO THE DETERMINATION OF SEPARATION DISTANCES CORRESPONDING TO RADIANT HEAT LEVELS 1

Applie	ed BAL Determination Method		METHOD 1 - SIMPLIFIED PROCEDURE (AS 3959:2018 CLAUSE 2.2)									
	The Calculation Variables Corresponding to the BAL Determination Method Applied											
	Methods 1 and 2		Method 1					Method 2				
	Vagatatian Classification		Effective SI	ope	Cito Close		Flame	Elevation	Flame	Fireline	Flame	Modified
	Vegetation Classification	FDI	Applied Range	Measured	Site Slope	FFDI or	Temp.	of Receiver	Width	Intensity	Length	View Factor
Area	Class		degree range	degrees	degrees	GFDI	K	metres	metres	kW/m	metres	% Reduction
1	(A) Forest	80	Downslope >0-5	d/slope 4								
2	(A) Forest	80	Downslope >5-10	d/slope 6.8								
3	(A) Forest	80	Downslope >10-15	d/slope 11								
4	(G) Grassland	110	Downslope >5-10	d/slope 5.8								
5	Excluded cl 2.2.3.2(e & f)	-	-	-								

<sup>&</sup>lt;sup>1</sup> All data and information supporting the determination of the classifications and values stated in this table and any associated justification, 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.



## NATURE STAY CAMPGROUNDS & SEASONAL CAMPGROUNDS SUMMARY OF CALCULATION INPUT VARIABLES APPLIED TO THE DETERMINATION OF SEPARATION DISTANCES CORRESPONDING TO RADIANT HEAT LEVELS 1

Applie	ed BAL Determination Method		METHOD 1 - SIMPLIFIED PROCEDURE (AS 3959:2018 CLAUSE 2.2)									
	The Calculation Variables Corresponding to the BAL Determination Method Applied											
	Methods 1 and 2		Method 1					Method 2				
	Va gratation Classification		Effective \$1	lope	Cito Clano	FFDI or	Flame Temp.	Elevation of Receiver	Flame Width	Fireline Intensity	Flame Length	Modified
·	Vegetation Classification	FDI	Applied Range	Measured	Site Slope							View Factor
Area	Class		degree range	degrees	degrees	GFDI	K	metres	metres	kW/m	metres	% Reduction
1	(G) Grassland	110	Upslope or flat 0	flat 0								
2	(D) Scrub	80	Upslope or flat 0	flat 0								
3	(G) Grassland	110	Downslope >0-5	d/slope 2.4								
4	Excluded cl 2.2.3.2(e & f)	ı	-	-								

<sup>&</sup>lt;sup>1</sup> All data and information supporting the determination of the classifications and values stated in this table and any associated justification, 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.

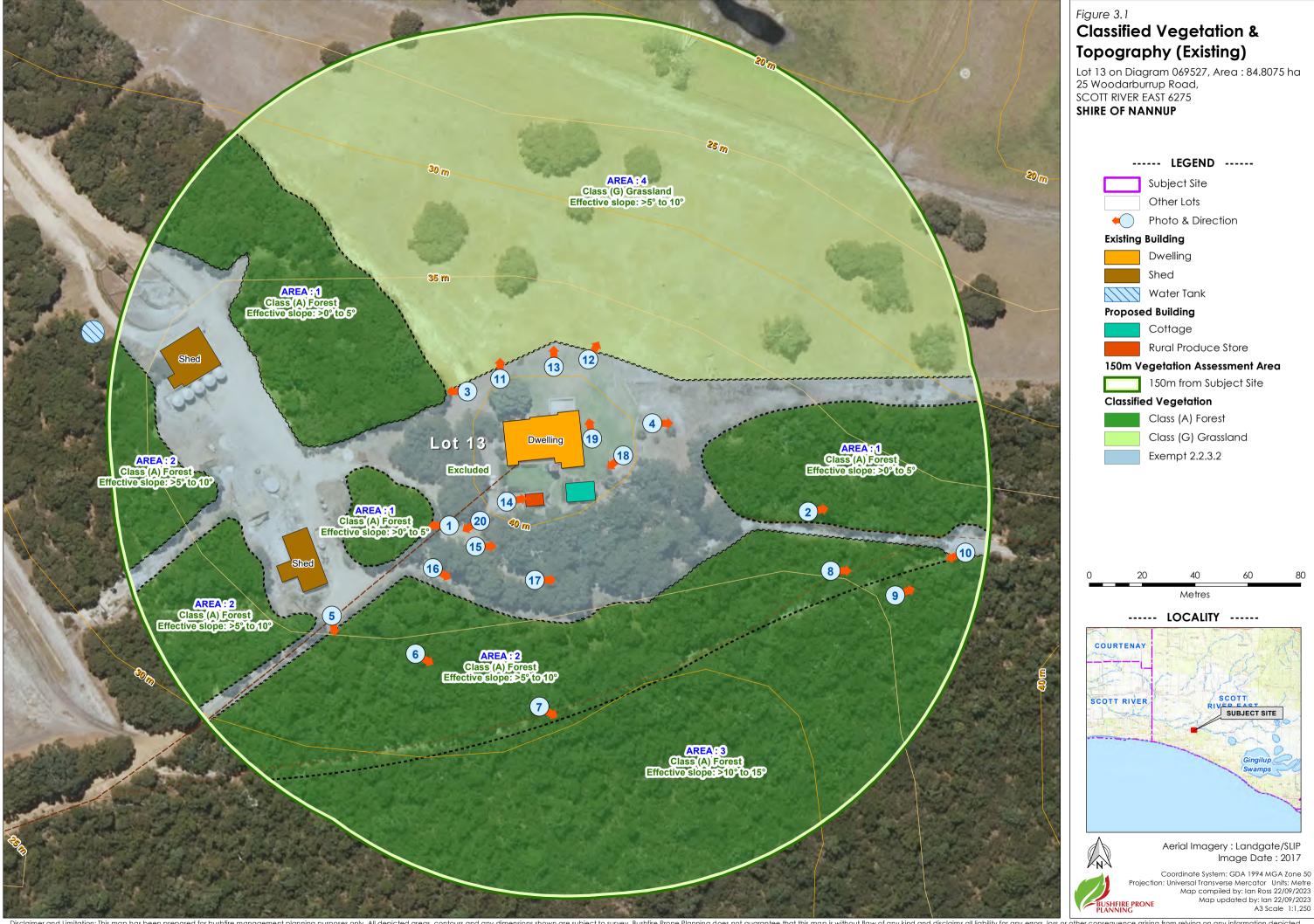


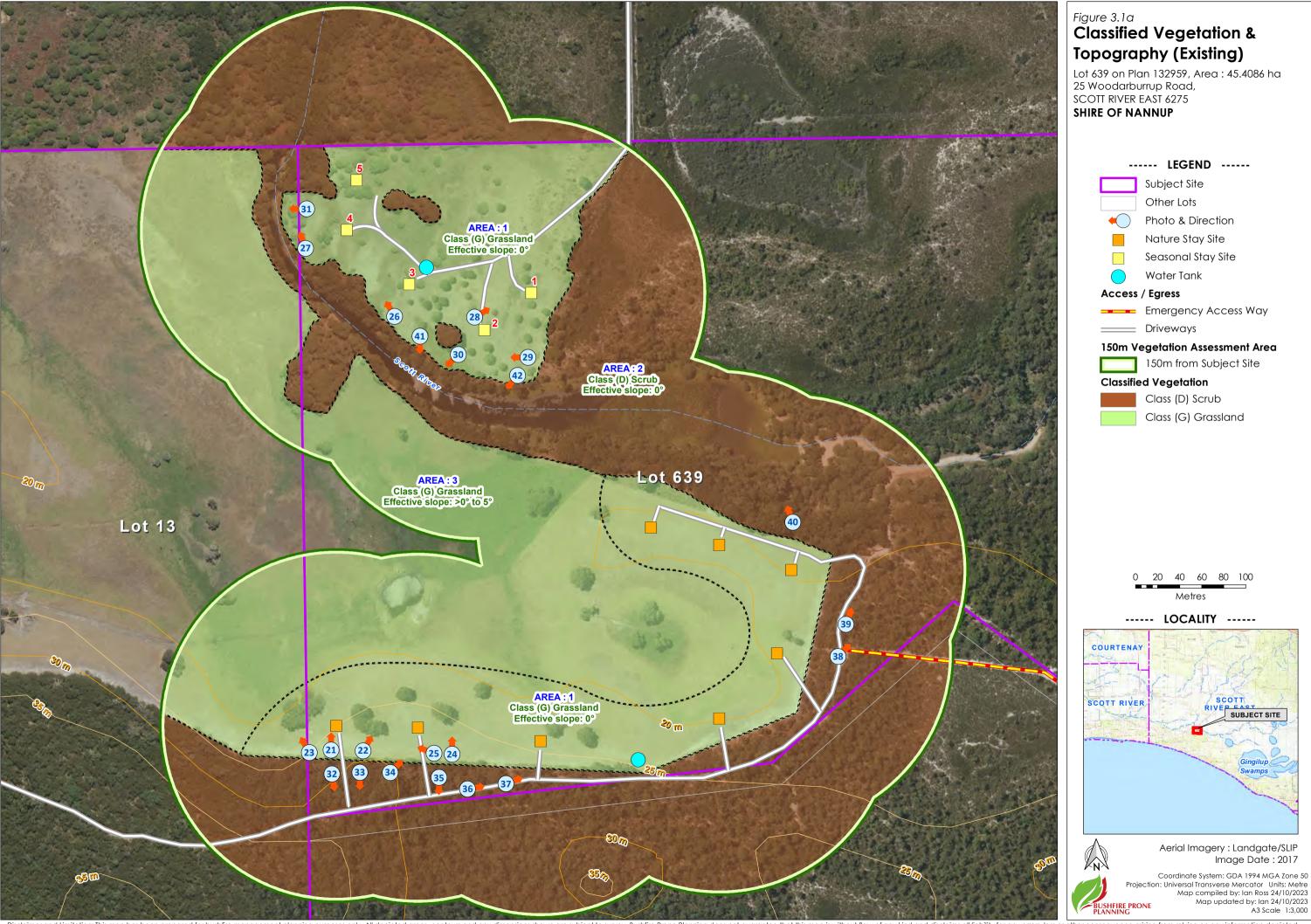
Table 3.3: Vegetation separation distances corresponding to the radiant heat levels illustrated as BAL contours in Figure 3.2.

	COTTAGE & RURAL PRODUCE STORE CALCULATED VEGETATION SEPARATION DISTANCES CORRESPONDING TO THE STATED LEVEL OF RADIANT HEAT 1										
		Separation Distances Corresponding to Stated Level of Radiant Heat (metres)									
	Vegetation Classification	Bushfire Attack Level Maximum Radiant Hea						diant Heat Flux			
Area	Class	BAL-FZ	BAL-40	BAL-29	BAL-19	BAL12.5	BAL-LOW	10 kW/m <sup>2</sup>	2 kW/m²		
1	(A) Forest	<20	20-<27	27-<37	37-<50	50-<100	>100				
2	(A) Forest	<26	26-<33	33-<46	46-<61	61-<100	>100				
3	(A) Forest	<33	33-<42	42-<56	56-<73	73-<100	>100				
4	(G) Grassland	<7	7-<9	9-<14	14-<20	20-<50	>50				
5	Excluded cl 2.2.3.2(e & f)	-	-	-	-	-	-				

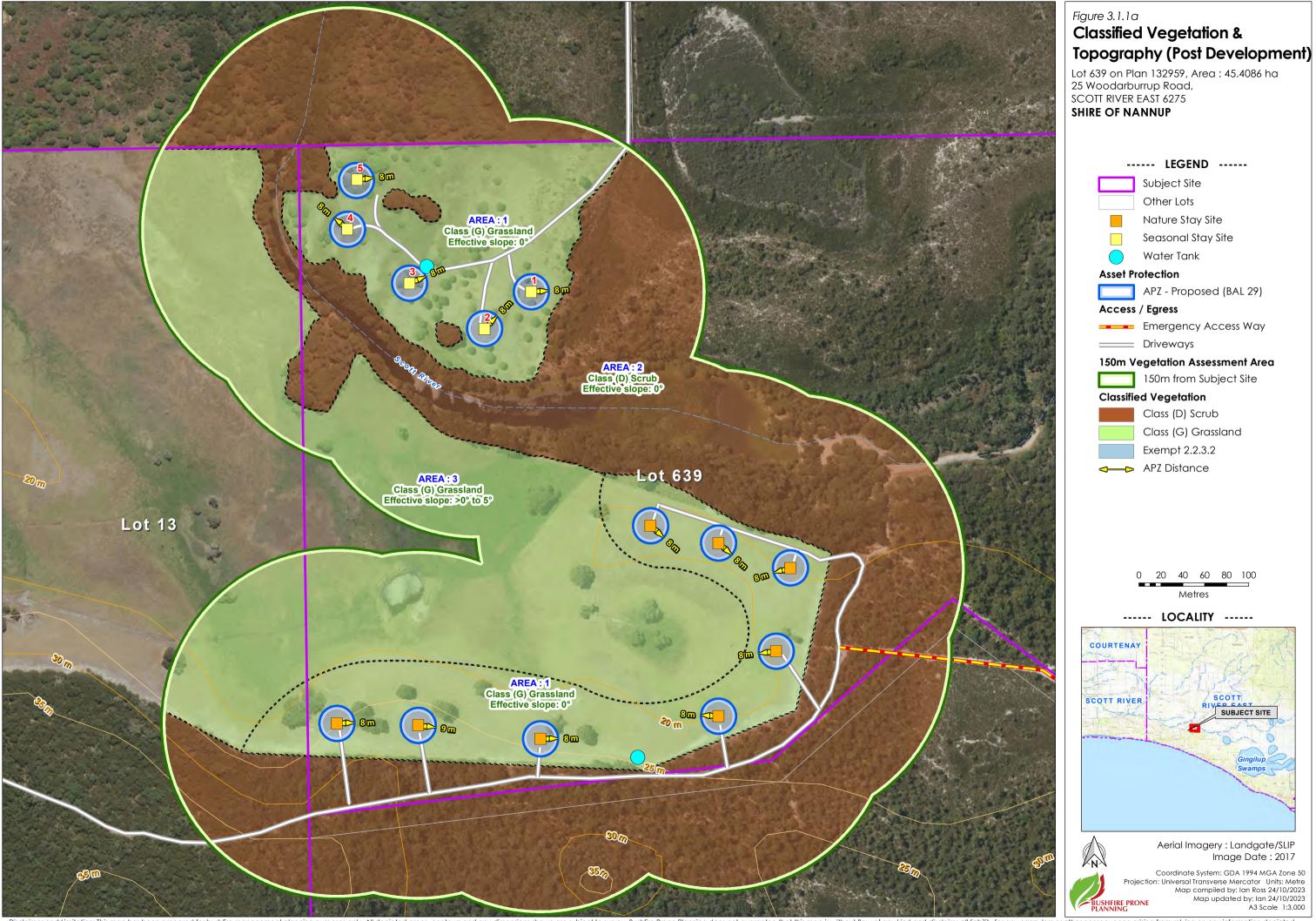
<sup>&</sup>lt;sup>1</sup> All calculation input variables are presented in Table 3.2. A copy of radiant heat calculator output for each area of classified vegetation are presented in Appendix A3.

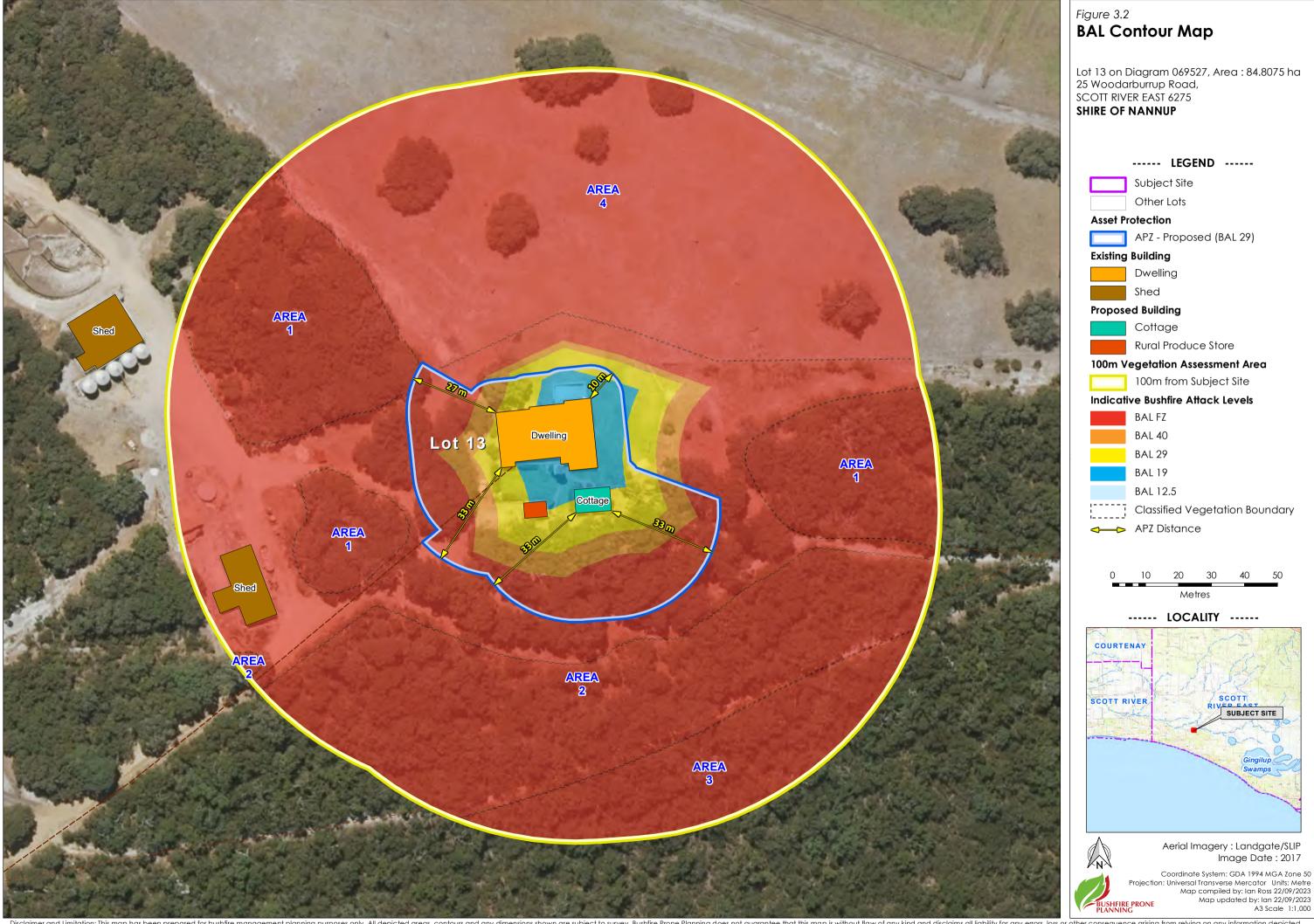
NAT	NATURE BASED CAMPGROUNDS & SEASONAL CAMPGROUNDS CALCULATED VEGETATION SEPARATION DISTANCES CORRESPONDING TO THE STATED LEVEL OF RADIANT HEAT 1										
		Separation Distances Corresponding to Stated Level of Radiant Heat (metres)									
	Vegetation Classification	Bushfire Attack Level Maximum Radiant Hec						liant Heat Flux			
Area	Class	BAL-FZ	BAL-40	BAL-29	BAL-19	BAL12.5	BAL-LOW	10 kW/m <sup>2</sup>	2 kW/m²		
1	(G) Grassland	<6	6-<8	8-<12	12-<17	17-<50	>50				
2	(D) Scrub	<10	10-<13	13-<19	19-<27	27-<100	>100				
3	(G) Grassland	<7	7-<9	9-<14	14-<20	20-<50	>50				
4	Excluded cl 2.2.3.2(e & f)	-	-	-	-	-	-				

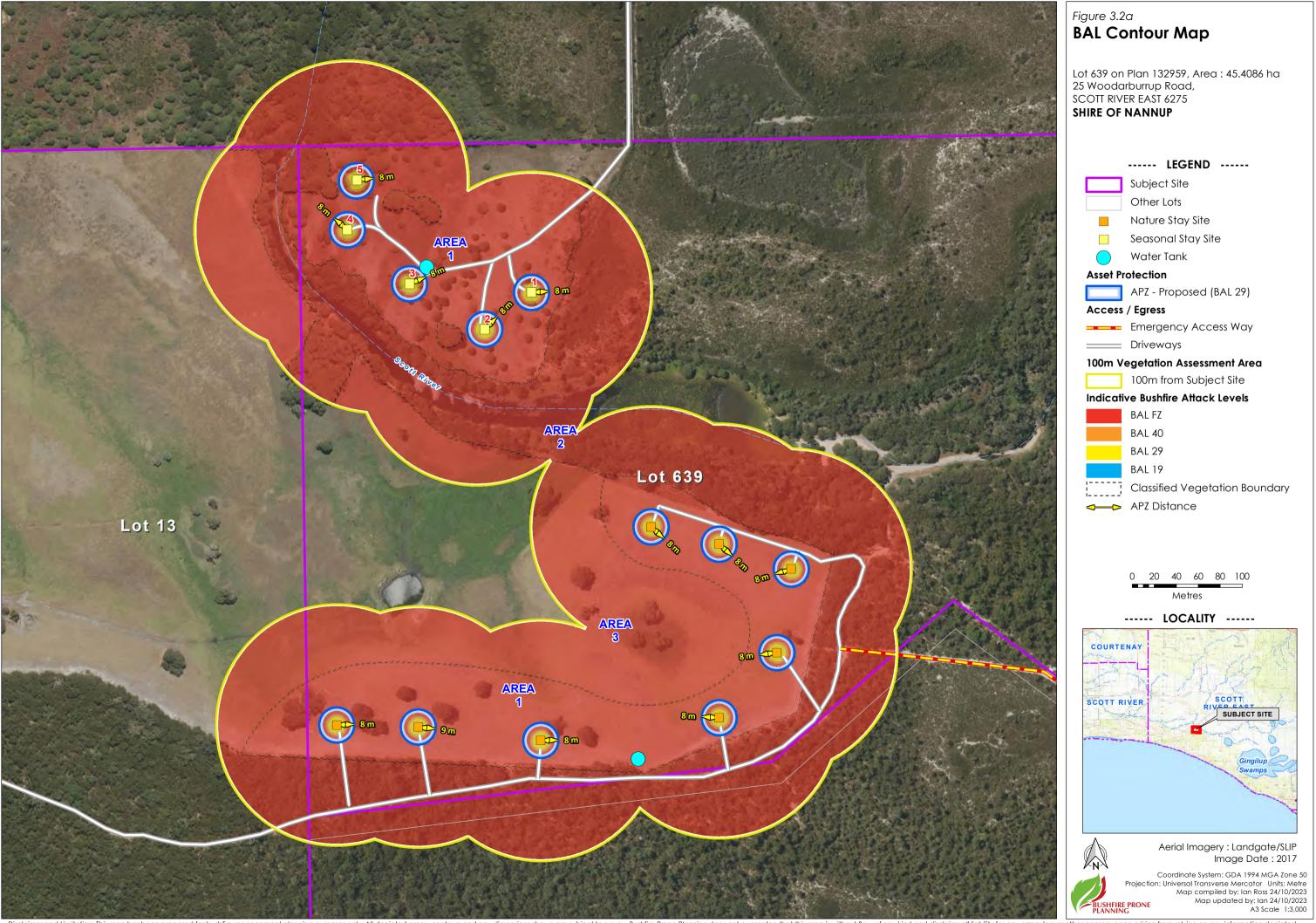














#### 4 IDENTIFICATION OF BUSHFIRE HAZARD ISSUES

The Guidelines for Planning in Bushfire Prone Areas (WAPC 2021 v1.4), Appendix 5, establish that the application of this section of the BMP is intended to support <u>strategic planning</u> proposals. At the strategic planning stage there will typically be insufficient proposed development detail to enable all required assessments, including the assessment against the bushfire protection criteria.

#### **Strategic Planning Proposals**

If the proposed development is at this stage of planning, this section of the BMP will identify:

- Issues associated with the level of the threats presented by any identified bushfire hazard;
- Issues associated with the ability to implement sufficient and effective bushfire protection measures to
  reduce the exposure and vulnerability levels (of elements exposed to the hazard threats), to a tolerable or
  acceptable level; and
- Issues that will need to be considered at subsequent planning stages.

#### Other Planning Proposals

For all other planning stages the following issues are addressed in other sections of this BMP:

- environmental, biodiversity and conservation values;
- The bushfire threats with the focus on flame contact and radiant heat; and
- The ability of the proposed development to apply the required bushfire protection measures thereby enabling it to be considered for planning approval.

These section include:

- Section 2 Environmental Conservation;
- Section 3 Potential Bushfire Impact; and
- Section 5 Assessment Against the Bushfire Protection Criteria. Including the guidance provided by the Position Statement: 'Planning in bushfire prone areas Demonstrating Element 1: Location and Element 2'.

Is the proposed development a strategic planning proposal?	No



## 5 ASSESSMENT AGAINST THE BUSHFIRE PROTECTION CRITERIA (GUIDELINES V1.4)

# 5.1 Bushfire Protection Criteria Elements Applicable to the Proposed Development/Use

#### APPLICATION OF THE CRITERIA, ACCEPTABLE SOLUTIONS AND PERFORMANCE ASSESSMENT

The criteria are divided into five elements – location, siting and design, vehicular access, water and vulnerable tourism land uses. Each element has an intent outlining the desired outcome for the element and reflects identified planning and policy requirements in respect of each issue.

The example acceptable solutions (bushfire protection measures) provide one way of meeting the element's intent. Compliance automatically achieves the element's intent and provides a straightforward pathway for assessment and approval.

Where the acceptable solutions cannot be met, the ability to develop design responses (as alternative solutions that meet bushfire performance requirements) is an alternative pathway that is provided by addressing the applicable performance principles (as general statements of how best to achieve the intent of the element).

A merit based assessment is established by the SPP 3.7 and the Guidelines as an additional alternative pathway along with the ability of using discretion in making approval decisions (sections 2.5, 2.6 and 2.7). This is formally applied to certain development (minor and unavoidable – sections 5.4.1 and 5.7). Relevant decisions by the State Administrative Tribunal have also supported this approach more generally.

Elements 1 – 4 should be applied for all strategic planning proposals, subdivision or development applications, except for vulnerable tourism land uses which should refer to Element 5. Element 5 incorporates the bushfire protection criteria in Elements 1 – 4 but caters them specifically to tourism land uses. (Guidelines DPLH 2021v1.4)

The Bushfire Protection Criteria	Applicable to the Proposed Development/Use
Element 1: Location	No
Element 2: Siting and Design	No
Element 3: Vehicular Access	No
Element 4: Water	No
Element 5: Vulnerable Tourism Land Uses	Yes

## 5.2 Local Government Variations to Apply

Local governments may add to or modify the acceptable solutions to recognise special local or regional circumstances (e.g., topography / vegetation / climate). These are to be endorsed by both the WAPC and DFES before they can be considered in planning assessments. (Guidelines DPLH 2021v1.4).

Do endorsed regional or local variations to the acceptable solutions apply to the assessments against the Bushfire Protection Criteria for the proposed development /use?

None known or identified



## 5.3 Assessment Statements for Element 5: Vulnerable Tourism Land Uses

## 5.3.1 Other Short Term Accommodation

		VULNERABLE TOURIS	SM .	
Element Inten		To provide bushfire protection for tourism land uses relevant to the characteristics of the occupants and/or the location, to preserve life and reduce the impact of bushfire on property and infrastructure.		
Proposed Development/Use – Relevant Type		Short term accommodation (other than B&B/Holiday House) including motel, serviced apartments, tourist development (includes cabins and chalets), holiday accommodation and caravan park (which incorporates camping grounds).		
Element Compliance Statement		The proposed development/use achieves the intent of this element by being fully compliant with all applicable acceptable solutions.		
Pathway Applied to Provide an Alternative Solution		N/A		
	Acc	ceptable Solutions - Assessm	ent Statements	
Department of https://www.wo. The technical coalso presented and when any appendix if required.	of Planning, Lands and a.gov.au/government/docuconstruction requirements for in Appendices 2 and 3. The	Heritage, 2021 Rev B) of ument-collections/state-planning raccess types and components to local government will advise the uch as those for signage and gment).	ement Plan Guidance for the E is relevant. These documer g-policy-37-planning-bushfire-pro , and for each firefighting water the proponent where different rec gates are to apply (these are in	nts are available at one-areas. supply component, are quirements are to apply
		A5.7 Siting and Des	gn	
A5.7a Asset p	protection zone (APZ) – co	aravan park only	Applicable: No	Compliant: N/A
The existing and/or proposed campground facilities (i.e. office, manages residence, camper's kitchen, showers, laundry etc.) can be sited within an asset protection zone of the required dimensions that will ensure their exposure to the potential radiant heat impact of a bushfire does not exceed 29 kW/m2 (BAL-29).				
Supporting As	ssessment Details: N/A			
A5.7b Asset p	protection zone (APZ) – ce	ertain accommodation	Applicable: No	Compliant: N/A
The following accommodation structures are considered by the proponents to be a tolerable loss in the event of a bushfire. Consequently, there is to be no radiant heat limitations applied to these sites (i.e. no specified dimensioned APZ). These structures are:  • Caravan and camping sites; and • Eco tents and cabins.				
Supporting As	ssessment Details: N/A			



A5.7c Asset protection zone (APZ) – all other accommodation Applicable: Yes Compliant:

#### APZ DIMENSIONS - DIFFERENCES IN REQUIREMENTS FOR PLANNING ASSESSMENTS COMPARED TO IMPLEMENTATION

A key required bushfire protection measure is to reduce the exposure of buildings/infrastructure (as exposed vulnerable elements at risk), to the direct bushfire threats of flame contact, radiant heat and embers and the indirect threat of consequential fires that result from the subsequent ignition of other combustible materials that may be constructed, stored or accumulate in the area surrounding these structures. This reduces the associated risks of damage or loss.

This is achieved by separating buildings (and consequential fire fuels as necessary) from areas of classified bushfire prone vegetation. This area of separation surrounding buildings is identified as the Asset Protection Zone (APZ) and consists of no vegetation and/or low threat vegetation or vegetation continually managed to a minimal fuel condition. The required separation distances will vary according to the site specific conditions and local government requirements.

The APZ dimensions stated and/or illustrated in this Report can vary dependent on the purpose for which they are being identified.

Note: Appendix B 'Onsite Vegetation Management' provides further information regarding the different APZ dimensions that can be referenced, their purpose and the specifications of the APZ that are to be established and maintained on the subject lot.

#### THE 'PLANNING BAL-29' APZ DIMENSIONS

**Purpose:** To provide evidence of the development or use proposal's ability to achieve minimum vegetation separation distances. To achieve 'acceptable solution' planning approval for this factor, it must be demonstrated that the minimum separation distances corresponding to a maximum level of radiant transfer to a building of 29 kW/m², either exist or can be implemented (with certain exceptions). These separation distances are the 'Planning BAL-29' APZ dimensions.

The 'Planning BAL-29' APZ is not necessarily the size of the APZ that must be physically implemented and maintained by a landowner. Rather, its sole purpose is to identify if an acceptable solution for planning approval can be met.

## THE 'REQUIRED' APZ DIMENSIONS

Purpose: Establishes the dimensions of the APZ to be physically implemented by the landowner on their lot: These will be the minimum required separation distances from the subject building(s) to surrounding bushfire prone vegetation (identified by type and associated ground slope). These are established by:

- A. The 'BAL Rating APZ' of the subject building(s) when distances are greater than 'B' below (except when 'B' establishes a maximum distance); or
- B. The 'Local Government' APZ' derived from the 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'.

Within this Report/Plan it is the 'Planning BAL-29' APZ that will be identified on maps, diagrams and in tables as necessary – unless otherwise stated.

The 'Required' APZ dimension information will be presented in Appendix B1.1 and on the Property Bushfire Management Statement, when required to be included for a development application.

APZ Width: Every existing or a future habitable building on the lot(s) of the proposed development, can
be located within the developable portion of the lot and be surrounded by a 'Planning BAL-29' APZ of
the required dimensions (measured from any external wall or supporting post or column to the edge of



	the classified vegetation), that will ensure their exposure to the potential radiant heat impact of a bushfire does not exceed 29 kW/ $m^2$ .
	<b>Restriction on Building Location:</b> It has been identified that the current developable portion of a lot(s) provides for a future building location that will result in that building being subject to a BA-40 or BAL-FZ rating. Consequently, it may be considered necessary to impose the condition that a restrictive covenant to the benefit of the local government pursuant to section 129BA of the Transfer of Land Act 1893, is to be placed on the certificate(s) of title of the proposed lot(s) advising of the existence of a restriction on the use of that portion of land (refer to Code F3 of Model Subdivision Conditions Schedule, WAPC June 2021 and Guidelines s5.3.2).
<b>V</b>	<b>APZ Location:</b> The required dimensions for a 'Planning BAL-29' APZ can be contained solely within the boundaries of the lot(s) on which the existing or future building(s) is situated.
	<b>APZ Location:</b> The required dimensions for a 'Planning BAL-29' APZ can be partly established within the boundaries of the lot(s) on which the existing or future building(s) is situated. The balance of the APZ would exist on adjoining land that satisfies the exclusion requirements of AS 3959:2018 cl 2.2.3.2 for non-vegetated areas and/or low threat vegetation and/or vegetation managed in a minimal fuel condition.
	<ul> <li>APZ Location: It can be justified that any adjoining (offsite) land forming part of a 'Planning BAL-29' APZ will:</li> <li>If non-vegetated, remain in this condition in perpetuity; and/or</li> <li>If vegetated, be low threat vegetation or vegetation managed in a minimal fuel condition in perpetuity.</li> </ul>
	<b>APZ Management:</b> The area of land (within each lot boundary), that is to make up the required 'Landowner' APZ dimensions (refer to Appendix B, Part B1), can and will be managed in accordance with the requirements of the Guidelines Schedule 1 'Standards for Asset Protection Zones' (refer to Appendix B).
	<b>Subdivision Staging:</b> There are undeveloped future stages of subdivision, containing bushfire prone vegetation, that have been taken into consideration for their potentially 'temporary' impact on the ability to establish a 'Planning BAL-29 APZ' on adjoining developed lots. A staging plan is developed to manage this.
	<b>Firebreak/Hazard Reduction Notice:</b> Any additional requirements established by the relevant local government's annual notice to install firebreaks and manage fuel loads (issued under s33 of the Bushfires Act 1954), can and will be complied with.
	Assessment Details: The BAL – 29 APZ can be achieved with managed onsite vegetation. are installed under the requirements established by the local government's annual firebreak notice.
A5.7d Asse	et protection zone (APZ) – landscape management Applicable: No Compliant: N/A
	The preparation of a landscape management plan, to identify ongoing onsite vegetation management, is appropriate for the proposed development. This will be prepared.
Supporting	g Assessment Details: N/A



A5.7e Ons	ite shelter – pedestrian paths	Applicable:	No	Compliant:	-	
$\square$ $\bigcirc$ To comply with acceptable solution A5.8.2e (lack of vehicular access), pedestrian paths to an onsite shelter area or building, with the required signage, can and will be provided.						
Supporting	Supporting Assessment Details: Not applicable					
A5.7f Onsit	re shelter – exposure to the bushfire hazard	Applicable:	No	Compliant:	-	
To comply with acceptable solution A5.8.2e (lack of vehicular access), a building that will function as suitable onsite shelter can and will be provided that will reduce persons exposure to bushfire threa (through the shielding provided by the building).  The building's exposure to the bushfire hazard threat of radiant heat will be limited to a maximum radiar heat flux of 10 kW/m2 (calculated with an assumed flame temperature of 1200K) by providing the require separation distances from the bushfire hazard.						
	To comply with acceptable solution A5.8.2e (lack of vehicular access), an open area that will function as a suitable onsite shelter can and will be provided that will limit persons exposure to a maximum radiant heat flux of 2 kW/m2 (calculated with an assumed flame temperature of 1200K) by providing the required separation distances from the bushfire hazard.					
Supporting	g Assessment Details: Not applicable					
A5.7g Ons	ite shelter – bushfire construction requirements	Applicable:	No	Compliant:	N/A	
	To comply with acceptable solution A5.8.2e (lack of vehicula onsite shelter can and will be designed and constructed in ac Code and the ABCB Community Shelter Handbook.	-				
Supporting	Assessment Details: N/A					
	A5.8 Vehicular Access					
	A5.8.1 Vehicular Access for All Propo	sals				
A5.8.1a Int	ernal access/private driveway - availability	Applicable:	Yes	Compliant:	Yes	
	The internal vehicular access/private driveway can provide emost aff in the event of a bushfire.	ergency acce	ess/egre	ess for all patro	ons and	
	It is possible to provide at least two internal access/egress point	s to the public	c road r	network.		
	Assessment Details: The internal driveway is constructed to the tress point that is to be used by guests.	technical req	uireme	nts. There is o	nly one	
A5.8.1b Ini	ernal access/private driveway - technical requirements	Applicable:	Yes	Compliant:	Yes	
	The internal vehicular access/private driveway length is no gred need to be met.	ater than 70m.	No ted	chnical requir	ements	
	The technical construction requirements for widths, cleard (Guidelines, Table 6. Refer also to Appendix C in this BMP), can				curves	



	Passing bays can and will be installed every 200m with a minimum length of 20m and a minimum additional trafficable width of 2m.					
The turnaround area requirements (Guidelines, Figure 28, and within 30m of the habitable building) can and will be complied with.						
	<b>Supporting Assessment Details:</b> The technical details for the internal driveway are compliant with the Guidelines, Table 6. There is a good turnaround area at the cottage.					
A5.8.1c Sig	nage Applicable:	Yes	Compliant:	Yes		
	The required information to inform the actions of those persons onsite in the prominently displayed within the site.	e event	of a bushfire	will be		
	This information will include evacuation routes and distance and the site sp will be established by the Bushfire Emergency Plan (or Information) that is rethe proposed use.					
Supporting	Assessment Details: Evacuation signage can be installed in the cottage.					
	A5.8.2 Vehicular Access for Short Term Accommodation Outside a Resident	ial Built-	out Area			
A5.8.2a Mu	Itiple access routes Applicable:	Yes	Compliant:	Yes		
	Two-way public road access is provided in two different directions to at destinations.	least t	vo different s	uitable		
	<b>Assessment Details:</b> Milyeannup Coast Road is a public road that travels in different on and Nannup). The road is accessible by 2WD in all weather conditions		rections (to Mo	argaret		
A5.8.2b No	·					
	-through roads – maximum length Applicable:	Yes	Compliant:	Yes		
	The no-through public road for the proposed development is no longer than the adjoining classified vegetation (excluding the road reserve) is categorise Level (Guidelines, Table 3).	n 200 me	tres. It is existing	ng and		
	The no-through public road for the proposed development is no longer than the adjoining classified vegetation (excluding the road reserve) is categorise	a 200 me	etres. It is existing the me Bushfire tres. It is unavo	ng and Hazard		
	The no-through public road for the proposed development is no longer than the adjoining classified vegetation (excluding the road reserve) is categorise Level (Guidelines, Table 3).  The no-through public road for the proposed development is no longer than and the adjoining classified vegetation (excluding the road reserve) is categorise.	a 200 med an Extra 500 med agorised	etres. It is existing the Bushfire tres. It is unavoing a Moderate E	ng and Hazard Didable Bushfire		
Supporting intersection	The no-through public road for the proposed development is no longer than the adjoining classified vegetation (excluding the road reserve) is categorise Level (Guidelines, Table 3).  The no-through public road for the proposed development is no longer than and the adjoining classified vegetation (excluding the road reserve) is cated Hazard Level (Guidelines, Table 3).  The no-through public road is unavoidable and the adjoining classified vegeserve) is categorised a Low Bushfire Hazard Level (Guidelines, Table 3) of the same content of the proposed development is no longer than and the adjoining classified vegetation (excluding the road reserve) is categorised a Low Bushfire Hazard Level (Guidelines, Table 3) of the proposed development is no longer than and the adjoining classified vegetation (excluding the road reserve) is categorised a Low Bushfire Hazard Level (Guidelines, Table 3) of the proposed development is no longer than and the adjoining classified vegetation (excluding the road reserve) is categorised a Low Bushfire Hazard Level (Guidelines, Table 3) of the proposed development is no longer than and the adjoining classified vegetation (excluding the road reserve) is categorised a Low Bushfire Hazard Level (Guidelines, Table 3) of the proposed development is no longer than and the adjoining classified vegetation (excluding the road reserve) is categorised a Low Bushfire Hazard Level (Guidelines, Table 3) of the proposed development is no longer than and the adjoining classified vegetation (excluding the road reserve) is categorised a Low Bushfire Hazard Level (Guidelines, Table 3) of the proposed development is no longer than and the adjoining classified vegetation (excluding the road reserve) is categorised and the excluding the road reserve).	500 me gertation r is not i	tres. It is existing the Bushfire tres. It is unavoida Moderate (excluding the dentified as because of the control of the dentified as because of the control of the contro	ng and Hazard Didable Bushfire e road Dushfire		
Supporting intersection and on the	The no-through public road for the proposed development is no longer than the adjoining classified vegetation (excluding the road reserve) is categorise Level (Guidelines, Table 3).  The no-through public road for the proposed development is no longer than and the adjoining classified vegetation (excluding the road reserve) is categorised Level (Guidelines, Table 3).  The no-through public road is unavoidable and the adjoining classified vegetation (excluding the road reserve) is categorised a Low Bushfire Hazard Level (Guidelines, Table 3) of prone. Consequently, there is no limit on its length.  Assessment Details: Woodarburrup Road is less than 200m in length to Vegetation on either side of the road is classified as low. On the northern	500 me getation r is not i	tres. It is existing the Bushfire tres. It is unavoida Moderate (excluding the dentified as because of the control of the dentified as because of the control of the contro	ng and Hazard Didable Bushfire e road Dushfire		



	The proposed or existing EAW provides a through connection to a public road.					
	The proposed or existing EAW is less than 500m in length and will be signposted and gated (remaining unlocked) to the specifications stated in the Guidelines and/or required by the relevant local government.					
The technical construction requirements for widths, clearances, capacity, gradients and curves (Guidelines, Table 6. Refer also to Appendix C in this BMP), can and will be complied with.						
	Assessment Details: The no-through road and multi-access rout y Access Way.	es are compli	ant. The	ere is no need	d for an	
A5.8.2d Pu	blic roads - technical requirements	Applicable:	Yes	Compliant:	Yes	
	The technical construction requirements of vertical clearance of Refer also to Appendix C in this BMP), can and will be complied	_	apacity	(Guidelines, <sup>1</sup>	Table 6.	
	All other applicable technical requirements of trafficable width in "accordance with the class of road as specified in the Neighbourhoods, Ausroad Standards and/or any applicable (Guidelines, Table 6 and sE3.1. Refer also to Appendix C in this E	IPWEA Subd standard in th	ivision (	Guidelines, L	iveable	
	The assessment conducted for the bushfire management p proposed development can and will comply with the requirem		that it	is unlikely th	nat the	
	However, the applicable class of road, the associated technical compliance, will need to be confirmed with the relevant local state.					
	A traversable verge is available adjacent to classified vegetation	on (Guidelines	s, E3.1),	as recomme	nded.	
<b>Supporting</b> for public r	<b>Assessment Details:</b> Milyeannup Coast Road and Woodarburru oads.	p Road meets	the tec	chnical requir	ements	
A5.8.2e Ac	cess limitations - onsite shelter option	Applicable:	No	Compliant:	N/A	
	The access requirements of two-way access, restricted no-thro (established by A8.5.2a, A8.5.2b and A8.5.2c) cannot be access protection measure of an onsite shelter to be provided in lieu of	chieved. The	Guideli	nes provide	for the	
	The capacity of the proposed development is no greater than	100 guests and	d staff c	ıt any one tin	ne.	
	An onsite shelter can and will be provided that complies with the hazard, building requirements and pedestrian paths (establish and A5.7g in 'Siting and Design').					
Supporting	Assessment Details: Not applicable					



	A5.9 Provision of Water for Firefighting Purposes						
A5.9a Retic	culated supply	Applicable:	No	Compliant:	N/A		
	$\square$ $\square$ A reticulated water supply is available to the proposed development. The existing hydrant connection(s) are provided in accordance with the specifications of the relevant water supply authority.						
A reticulated water supply is available to the proposed development. Hydrant connection(s) can and will be provided in accordance with the specifications of the relevant water supply authority.					and will		
Supporting	Supporting Assessment Details: N/A						
A5.9b Non	-reticulated supply	Applicable:	Yes	Compliant:	Yes		
	A static water supply (tank) for firefighting purposes will be water supply that is required for drinking and other domestic		lot that	is additional	to any		
	The technical requirements (location, volumes, design, materials, pipes and fittings), as established by the Guidelines (Schedule 2 and E4) and/or the relevant local government, can and will be complied with.						
<b>Supporting Assessment Details:</b> The cottage is fed by a header tank which connects to the bore. The tank is right next to the cottage. Should a dedicated water source for firefighting be required by the Local Government this can be achieved.							
Refer to i requireme	nformation contained in Appendix D for the firefighting v nts.	water supply sp	ecifica	tions and te	chnical		

# 5.3.2 Camping Ground Only (Remote) or Nature-Based Park

VULNERABLE TOURISM							
Element Intent	To provide bushfire protection for tourism land uses relevant to the characteristics of the occupants and/or the location, to preserve life and reduce the impact of bushfire on property and infrastructure.						
Proposed Development/Use – Relevant Type  Camping ground only (remote) or nature-based park.							
The proposed development/use achieves the intent of this element by being fully compliant with all applicable acceptable solutions.							
Pathway Applie Alternative Solu		N/A					
	Acc	ceptable Solutions - Assessment Statements					
All details of acceptable solution requirements are established in the Guidelines for Planning in Bushfire Prone Areas, DPLH v1.4 (Guidelines) and apply the guidance established by the 'Bushfire Management Plan Guidance for the Dampier Peninsula' (WA Department of Planning, Lands and Heritage, 2021 Rev B) as relevant. These documents are available at https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas.							
The technical construction requirements for access types and components, and for each firefighting water supply component, are also presented in Appendices C and D. 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 relevant appendix if requested by the local government).							
Solution Compo	Solution Component Check Box Legend						



	A5.10 Siting and Design							
A5.10a Re	duce exposure to radiant heat (separation)	Applicable:	Yes	Compliant:	Yes			
	The proposed camping sites are considered by the proponent bushfire. Consequently, there is to be no radiant heat limitation dimensioned APZ).							
	The proposed camping sites can be sited within an asset protection zone of the required dimensions that will ensure their exposure to the potential radiant heat impact of a bushfire does not exceed 29 kW/m2 (BAL-29).							
Supporting	Supporting Assessment Details: All campgrounds can achieve siting within an area with a BAL - 29 APZ							
A5.10b Fire	e pits	Applicable:	Yes	Compliant:	Yes			
When open campfires are intended to be part of site operations, they will be contained in constructed fire pits and their use enforced in accordance with the Bush Fires Act 1954, including Section 25 with regard to use restrictions and vegetation clearances.								
	Assessment Details: Fire pits do not constrain ember movement volunding vegetation, their use will be prohibited during the bushfir		ts and w	rind. In consid	leration			
A5.10c On	site shelter - pedestrian paths	Applicable:	No	Compliant:	N/A			
	To comply with acceptable solution A5.11d (lack of vehicula shelter area, with the required signage, can and will be provide		edestriar	n paths to ar	n onsite			
Supporting	Assessment Details: None required							
A5.10d On	site shelter – open area	Applicable:	No	Compliant:	N/A			
	To comply with acceptable solution A5.11d (lack of vehicular of a suitable onsite shelter can and will be provided that will limit heat flux of 2 kW/m2 (calculated with an assumed flame temper separation distances from the bushfire hazard.	persons expo	osure to	a maximum	radiant			
Supporting	Assessment Details: None required							
	A5.11 Vehicular Access							
A5.11a Mu	Itiple access routes	Applicable:	Yes	Compliant:	Yes			
	Two-way public road access is provided in two different directions.	ections to at	least tv	vo different s	suitable			
	Assessment Details: Milyeannup Coast Road is a public road that berton and Nannup). The road is accessible by 2WD in all weath			ections (to M	argaret			
A5.11b No	-through roads – maximum length	Applicable:	Yes	Compliant:	Yes			



	The no-through public road for the proposed development is no longer than 200 metres. It is existing and the adjoining classified vegetation (excluding the road reserve) is categorised an Extreme Bushfire Hazard Level (Guidelines, Table 3).						
	The no-through public road for the proposed development is rand the adjoining classified vegetation (excluding the road re Hazard Level (Guidelines, Table 3).	_					
The no-through public road is unavoidable and the adjoining classified vegetation (excluding the road reserve) is categorised a Low Bushfire Hazard Level (Guidelines, Table 3) or is not identified as bushfire prone. Consequently, there is no limit on its length.							
<b>Supporting Assessment Details:</b> Woodarburrup Road is less than 200m in length to Milyeannup Coast Road intersection. Vegetation on either side of the road is classified as low. On the northern side of the road is a feedlot and on the south side of the road is managed grassland.							
A5.11c Em	ergency access way – alternative access option	Applicable:	No	Compliant:	Yes		
	A5.11aa andA5.11b cannot be achieved.						
<b>d</b>	The proposed or existing EAW provides a through connection	to a public roa	d.				
	The proposed or existing EAW is less than 500m in length and unlocked) to the specifications stated in the Guidelines and/or						
	The technical construction requirements for widths, clear (Guidelines, Table 6. Refer also to Appendix C in this BMP), car				curves		
campgrou	Assessment Details: Whilst not required, there is an Emerge and, following the property boundary to Woodarburrup Road. Echnical requirements.						
A5.11d Ac	cess limitations – onsite shelter option	Applicable:	No	Compliant:	N/A		
	The access requirements of two-way access, restricted no-through (established by A5.11a, A5.11b and A5.11c) cannot be a protection measure of an onsite shelter to be provided in lieur	chieved. The	Guideli	nes provide	for the		
	The capacity of the proposed development is no greater than	n 100 guests and	d staff c	at any one tim	ıe.		
	An onsite shelter can and will be provided that complies with the hazard, bushfire construction requirements and pedestrian passion and A5.10d in 'Siting and Design').						
Supporting	Assessment Details: None required						



A5.11e Inte	ernal access/private driveway – availability	Applicable:	Yes	Compliant:	Yes		
	The internal vehicular access/private driveway can provide emestaff in the event of a bushfire.	ergency acce	ess/egre	ss for all patro	ons and		
☑ ☐ It is possible to provide at least two internal access/egress points to the public road network.							
Supporting	Assessment Details: The second access/egress point is the Emer	gency Acces	s Way.				
A5.11f Inte	rnal access/private driveway - technical requirements	Applicable:	Yes	Compliant:	Yes		
	The internal vehicular access/private driveway length is no greaneed to be met.	iter than 70m.	No tec	chnical requir	ements		
	The technical construction requirements for widths, clearances, capacity, gradients and curves (Guidelines, Table 6. Refer also to Appendix C in this BMP), can and will be complied with.						
	Passing bays can and will be installed every 200m with a madditional trafficable width of 2m.	ninimum lengt	th of 20	)m and a m	inimum		
	The turnaround area requirements (Guidelines, Figure 28, and vand will be complied with.	vithin 30m of	the hab	itable buildin	ıg) can		
This is suita	Assessment Details: The existing internal driveway to the nature-bale for 2WD traffic in all weather conditions. Gravel will be laid in a nical requirements can be achieved.						
the access for patrons the Depar lying area camping,	The existing access to the seasonal campsite is through Water Corporation Reserve 12457. The proponent maintains the accessway and approval has been gained by the Water Corporation (land manager) to utilise the accessway for patrons as egress to the northern side of Scott River for camping. An easement is currently being requested through the Department Planning, Lands and Heritage (land owner). As the accessway traverses a winter tributary and low-lying areas, the campground can only be accessed during summer months. During summer when guests are camping, it is recommended that the property owners check the DFES website for all hazards, in case guests need to evacuate.						
A5.11g Sig	nage	Applicable:	Yes	Compliant:	Yes		
	The required information to inform the actions of those persons prominently displayed within the site.	s onsite in the	event	of a bushfire	will be		
	This information will include evacuation routes and distance, where access is 4WD only and the site specific procedural detail that will be established by the Bushfire Emergency Plan (or Information) that i required to be developed for the proposed use.						
	Assessment Details: Signage can be erected at the entrance vance to the seasonal campground.	way to the na	ture sta	y campgroui	nd and		



A5.12 Provision of Water for Firefighting Purposes						
A5.12a No	supply required	Applicable:	No	Compliant:	N/A	
	☐ ☐ ☐ ☐ ☐ ☐ ☐ Drinking water is not provided onsite and the local government has not specifically requested that a firefighting water supply is to be provided. Consequently, no firefighting water supply is required.					
Supporting	Assessment Details: Not applicable					
A5.12b No	n-reticulated supply	Applicable:	Yes	Compliant:	Yes	
	Drinking water is provided onsite and it <u>is</u> intended for persons or of 20,000 litres of static supply will be provided, or a volume to t					
	Drinking water is provided onsite and it is <u>not</u> intended for p Consequently, no firefighting water supply is required.	ersons onsite	to activ	ely defend t	he site.	
the seasor	Assessment Details: Whilst onsite drinking water will not be pronal campground, it is a requirement of the Local Government of purposes of 20,000 litres is located at each campground. This is	that a strategi	c water			
A5.12c No	n reticulated supply – technical requirements	Applicable:	Yes	Compliant:	Yes	
The technical construction requirements (volumes, design, materials), established by the Guidelines and/or the local government, can and will be complied with. The technical requirements (design, construction materials, pipes and fittings), as established by the Guidelines (Element 4, Schedule 2, s2.2) and/or the relevant local government, can and will be complied with.						
Refer to i	Supporting Assessment Details: The technical requirements for strategic fire-fighting water tanks can be achieved.  Refer to information contained in Appendix D for the firefighting water supply specifications and technical requirements.					



## 5.3.3 Day Uses

	VULNERABLE TOURISM						
To provide bushfire protection for tourism land uses relevant to the characteristics of the occupant and/or the location, to preserve life and reduce the impact of bushfire on property and infrastructure.							
Proposed Development/Use – Relevant Type		Day uses (with no overnight accommodation) including art gallery, brewery exhibition centre, hotel, reception centre, restaurant/cafe, small bar, taverr winery.					
Element Compliance Statement		The proposed development/use achieves the intent of this element by being fully compliant with all applicable acceptable solutions.					
Pathway Applied to Provide an Alternative Solution		N/A					

## **Acceptable Solutions - Assessment Statements**

All details of acceptable solution requirements are established in the Guidelines for Planning in Bushfire Prone Areas, DPLH v1.4 (Guidelines) and apply the guidance established by the 'Bushfire Management Plan Guidance for the Dampier Peninsula' (WA Department of Planning, Lands and Heritage, 2021 Rev B) as relevant. These documents are available at <a href="https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas">https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas</a>.

The technical construction requirements for access types and components, and for each firefighting water supply component, are also presented in Appendices C and D. 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 relevant appendix if requested by the local government).

Solution Component Check Box Legend	☑ Relevant & met	🗵 Relevant & not r	net		ant
A5.13 Siting and Design					
A5.13a Asset protection zone (APZ)		Applicable:	Yes	Compliant:	Yes

## APZ DIMENSIONS - DIFFERENCES IN REQUIREMENTS FOR PLANNING ASSESSMENTS COMPARED TO IMPLEMENTATION

A key required bushfire protection measure is to reduce the exposure of buildings/infrastructure (as exposed vulnerable elements at risk), to the direct bushfire threats of flame contact, radiant heat and embers and the indirect threat of consequential fires that result from the subsequent ignition of other combustible materials that may be constructed, stored or accumulate in the area surrounding these structures. This reduces the associated risks of damage or loss.

This is achieved by separating buildings (and consequential fire fuels as necessary) from areas of classified bushfire prone vegetation. This area of separation surrounding buildings is identified as the Asset Protection Zone (APZ) and consists of no vegetation and/or low threat vegetation or vegetation continually managed to a minimal fuel condition. The required separation distances will vary according to the site specific conditions and local government requirements.

The APZ dimensions stated and/or illustrated in this Report can vary dependent on the purpose for which they are being identified.

Note: Appendix B 'Onsite Vegetation Management' provides further information regarding the different APZ dimensions that can be referenced, their purpose and the specifications of the APZ that are to be established and maintained on the subject lot.



## THE 'PLANNING BAL-29' APZ DIMENSIONS

**Purpose: To provide evidence of the development or use proposal's ability to achieve minimum vegetation separation distances.** To achieve 'acceptable solution' planning approval for this factor, it must be demonstrated that the minimum separation distances corresponding to a maximum level of radiant transfer to a building of 29 kW/m², either exist or can be implemented (with certain exceptions). These separation distances are the 'Planning BAL-29' APZ dimensions.

The 'Planning BAL-29' APZ is not necessarily the size of the APZ that must be physically implemented and maintained by a landowner. Rather, its sole purpose is to identify if an acceptable solution for planning approval can be met.

## THE 'REQUIRED' APZ DIMENSIONS

**Purpose: Establishes the dimensions of the APZ to be physically implemented by the landowner on their lot:** These will be the minimum required separation distances from the subject building(s) to surrounding bushfire prone vegetation (identified by type and associated ground slope). These are established by:

- A. The 'BAL Rating APZ' of the subject building(s) when distances are greater than 'B' below (except when 'B' establishes a maximum distance); or
- B. The 'Local Government' APZ' derived from the 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'.

Within this Report/Plan it is the 'Planning BAL-29' APZ that will be identified on maps, diagrams and in tables as necessary – unless otherwise stated.

The 'Required' APZ dimension information will be presented in Appendix B1.1 and on the Property Bushfire Management Statement, when required to be included for a development application.

<b>APZ Width:</b> The proposed (or a future) habitable building(s) on the lot(s) of the proposed development or an existing building(s) for a proposed change of use – can be (or is) located within the developable portion of the lot and be surrounded by a 'Planning BAL-29' APZ of the required dimensions (measured from any external wall or supporting post or column to the edge of the classified vegetation), that will ensure their exposure to the potential radiant heat impact of a bushfire does not exceed 29 kW/m².
<b>Restriction on Building Location:</b> It has been identified that the current developable portion of a lot(s) provides for a future building location that will result in that building being subject to a BA-40 or BAL-FZ rating. Consequently, it may be considered necessary to impose the condition that a restrictive covenant to the benefit of the local government pursuant to section 129BA of the Transfer of Land Act 1893, is to be placed on the certificate(s) of title of the proposed lot(s) advising of the existence of a restriction on the use of that portion of land (refer to Code F3 of Model Subdivision Conditions Schedule, WAPC June 2021 and Guidelines s5.3.2).
<b>APZ Location:</b> The required dimensions for a 'Planning BAL-29' APZ can be contained solely within the boundaries of the lot(s) on which the proposed (or a future) habitable building(s) - or an existing building(s) for a proposed change of use – is situated.
<b>APZ Location:</b> The required dimensions for a 'Planning BAL-29' APZ can be partly established within the boundaries of the lot(s) on which the proposed (or a future) habitable building(s) - or an existing building(s) for a proposed change of use – is situated. The balance of the APZ would exist on adjoining land that satisfies the exclusion requirements of AS 3959:2018 cl 2.2.3.2 for non-vegetated areas and/or low threat vegetation and/or vegetation managed in a minimal fuel condition.



	<b>APZ Location:</b> It can be justified that any adjoining (offsite) lan will:	d forming par	t of a 'P	lanning BAL-	29' APZ		
	<ul> <li>If non-vegetated, remain in this condition in perpetuity</li> <li>If vegetated, be low threat vegetation or vegetation perpetuity.</li> </ul>		a minir	nal fuel cond	dition in		
☑ □	<b>APZ Management:</b> The area of land (within each lot bound 'Landowner' APZ dimensions (refer to Appendix B, Part B1), can the requirements of the Guidelines Schedule 1 'Standards for AB).	and will be mo	anaged	in accordan	ce with		
	<b>Subdivision Staging:</b> There are undeveloped future stages of vegetation, that have been taken into consideration for their pot to establish a 'Planning BAL-29 APZ' on adjoining developed lot this.	otentially 'temp	porary' i	mpact on the	e ability		
Firebreak/Hazard Reduction Notice: Any additional requirements established by the relevant local government's annual notice to install firebreaks and manage fuel loads (issued under s33 of the Bushfire Act 1954), can and will be complied with.							
	3 Assessment Details:						
The ability	to establish the 'Planning BAL-29' APZ dimensions is illustrated in	Figure 3.1					
A5.13b On	site shelter – pedestrian paths	Applicable:	No	Compliant:	N/A		
	To comply with acceptable solution A5.14d (lack of vehicula shelter area or building, with the required signage, can and will			n paths to ar	n onsite		
				n paths to ar	n onsite		
Supporting	shelter area or building, with the required signage, can and wil			compliant:	n onsite		
Supporting	shelter area or building, with the required signage, can and wil g Assessment Details: None required	Applicable:  ill function as dire threats (threat will be lire	No a suitab ough th mited to	Compliant:  le onsite shel e shielding pr a maximum	N/A ter can rovided radiant		
Supporting  A5.13c On	shelter area or building, with the required signage, can and will a Assessment Details: None required  site shelter – exposure to the bushfire hazard  To comply with acceptable solution A5.14d, a building that will and will be provided that will reduce persons exposure to bushf by the building).  The building's exposure to the bushfire hazard threat of radiant heat flux of 10 kW/m2 (calculated with an assumed flame temporary and the signal of the	Applicable:  Ill function as a little threats (threats) the little threats (threats) access), an oper persons expositions.	No a suitab ough th mited to DK) by pr	Compliant:  le onsite shelle shielding produced a maximum roviding the result that will fund a maximum	N/A ter can rovided radiant equired ction as radiant		
Supporting  A5.13c On	shelter area or building, with the required signage, can and will a Assessment Details: None required  site shelter – exposure to the bushfire hazard  To comply with acceptable solution A5.14d, a building that will and will be provided that will reduce persons exposure to bushfiby the building).  The building's exposure to the bushfire hazard threat of radiant heat flux of 10 kW/m2 (calculated with an assumed flame temporare separation distances from the bushfire hazard.  To comply with acceptable solution A5.14d (lack of vehicular of a suitable onsite shelter can and will be provided that will limit heat flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flux of 2	Applicable:  Ill function as a little threats (threats) the little threats (threats) access), an oper persons expositions.	No a suitab ough th mited to DK) by pr	Compliant:  le onsite shelle shielding produced a maximum roviding the result that will fund a maximum	N/A ter can rovided radiant equired ction as radiant		
Supporting  A5.13c On	shelter area or building, with the required signage, can and will a Assessment Details: None required  site shelter – exposure to the bushfire hazard  To comply with acceptable solution A5.14d, a building that will and will be provided that will reduce persons exposure to bushfiby the building).  The building's exposure to the bushfire hazard threat of radiant heat flux of 10 kW/m2 (calculated with an assumed flame temporare separation distances from the bushfire hazard.  To comply with acceptable solution A5.14d (lack of vehicular of a suitable onsite shelter can and will be provided that will limit heat flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flame temporare flux of 2 kW/m2 (calculated with an assumed flux	Applicable:  Ill function as a little threats (threats) the little threats (threats) access), an oper persons expositions.	No a suitab ough th mited to DK) by pr	Compliant:  le onsite shelle shielding produced a maximum roviding the result that will fund a maximum	N/A ter can rovided radiant equired ction as radiant		



The building(s) provided as an onsite shelter can and will be built to the bushfire construction requirements corresponding to BAL-29 (as per AS 3959 or the NASH Standard) as a minimum – while complying with A15.13c (being subject to a maximum radiant heat flux of 10 kW/m²).										
Supporting	Assessment Details: None required									
	A5.14 Vehicular Access									
A5.14a Mu	ultiple access routes	Applicable:	Yes	Compliant:	Yes					
<b>V</b>	Two-way access is available. Public road access is provided in different suitable destinations.	n two differer	nt direc	ctions to at lea	ast two					
	This exception applies. Secondary access cannot be achieved. out area.	The tourism la	nd use	is in a resident	ial built					
	This exception applies. Secondary access cannot be achieved. The bushfire emergency plan provides for closure on days with forecast extreme or fire danger rating and a total fire ban and provides for the early evacuation of patrons and staff.									
	☐ ☐ O This exception applies. Secondary access cannot be achieved. The bushfire emergency plan provides for non-operation during the bushfire season.									
<b>Supporting Assessment Details</b> : Milyeannup Coast Road is a public road that travels in different directions (to Margaret River, Pemberton and Nannup). The road is accessible by 2WD in all weather conditions.										
A5.14b No	-through roads – maximum length	Applicable:	Yes	Compliant:	Yes					
A5.14b No	-through roads – maximum length  The no-through public road for the proposed development is not the adjoining classified vegetation (excluding the road reserve) Level (Guidelines, Table 3).	o longer than	200 me	etres. It is existi	ng and					
	The no-through public road for the proposed development is no the adjoining classified vegetation (excluding the road reserve)	o longer than is categorised	200 me	etres. It is existil reme Bushfire tres. It is unava	ng and Hazard					
	The no-through public road for the proposed development is not the adjoining classified vegetation (excluding the road reserve)  Level (Guidelines, Table 3).  The no-through public road for the proposed development is not and the adjoining classified vegetation (excluding the road reserve)	o longer than is categorised olonger than serve) is categorised	200 me an Ext 500 me gorised	etres. It is existing reme Bushfire tres. It is unavoing a Moderate E	ng and Hazard Didable Bushfire					
Supporting intersectio	The no-through public road for the proposed development is not the adjoining classified vegetation (excluding the road reserve) Level (Guidelines, Table 3).  The no-through public road for the proposed development is not and the adjoining classified vegetation (excluding the road reserve) Hazard Level (Guidelines, Table 3).  The no-through public road is unavoidable and the adjoining or reserve) is categorised a Low Bushfire Hazard Level (Guidelines).	o longer than is categorised blonger than 5 serve) is categorised classified veges, Table 3) or	200 med an Ext	etres. It is existing reme Bushfire tres. It is unavoid a Moderate Excluding the identified as becannup Coast	ng and Hazard Didable Bushfire Dushfire					
Supporting intersection and on the	The no-through public road for the proposed development is not the adjoining classified vegetation (excluding the road reserve) Level (Guidelines, Table 3).  The no-through public road for the proposed development is not and the adjoining classified vegetation (excluding the road reserve) Hazard Level (Guidelines, Table 3).  The no-through public road is unavoidable and the adjoining or reserve) is categorised a Low Bushfire Hazard Level (Guideline prone. Consequently, there is no limit on its length.  3 Assessment Details: Woodarburrup Road is less than 200m n. Vegetation on either side of the road is classified as low. On	o longer than is categorised blonger than 5 serve) is categorised classified veges, Table 3) or	200 med an Ext	etres. It is existing reme Bushfire tres. It is unavoid a Moderate Excluding the identified as becannup Coast	ng and Hazard Didable Bushfire Dushfire					
Supporting intersection and on the	The no-through public road for the proposed development is not the adjoining classified vegetation (excluding the road reserve) Level (Guidelines, Table 3).  The no-through public road for the proposed development is not and the adjoining classified vegetation (excluding the road reserve) Hazard Level (Guidelines, Table 3).  The no-through public road is unavoidable and the adjoining or reserve) is categorised a Low Bushfire Hazard Level (Guideline prone. Consequently, there is no limit on its length.  G. Assessment Details: Woodarburrup Road is less than 200m in Vegetation on either side of the road is classified as low. On the south side of the road is managed grassland.	o longer than is categorised olonger than 5 longer than 5 lerve) is categorised veges, Table 3) or in length to the northern s	200 mel an Ext	etres. It is existing reme Bushfire tres. It is unavoid a Moderate Excluding the identified as becannup Coast the road is a first tres.	ng and Hazard Didable Bushfire Dushfire					



	□⊘	The proposed or existing EAW is less than 500m in length and will be signposted and gated (remaining unlocked) to the specifications stated in the Guidelines and/or required by the relevant local government.									
	□ 0	The technical construction requirements for widths, clearance (Guidelines, Table 6. Refer also to Appendix C in this BMP.), can are				curves					
Supp	orting	g Assessment Details: Not applicable									
A5.14	ld Ac	ccess limitations - onsite shelter option A	pplicable:	No	Compliant:	N/A					
	□⊘	The access requirements of two-way access, restricted no-throug (established by A5.14a, A5.14b and A5.14c) cannot be achie protection measure of an onsite shelter to be provided in lieu of a	eved. The	Guidelir	nes provide	for the					
	□ 0	The capacity of the proposed development is no greater than 100	0 guests and	d staff a	t any one tim	ne.					
	□⊘	An onsite shelter can and will be provided in accordance with bushfire hazard, bushfire construction requirements and pedestr solutions A13b, A13c and A13d in 'Siting and Design').									
Supp	orting	g Assessment Details: None required									
A5.14	le Pu	ablic roads - technical requirements	pplicable:	Yes	Compliant:	Yes					
		The technical construction requirements of vertical clearance and Refer also to Appendix C in this BMP), can and will be complied w	_	ıpacity	(Guidelines, 1	Table 6.					
☑ □		All other applicable technical requirements of trafficable width, gin "accordance with the class of road as specified in the IP Neighbourhoods, Ausroad Standards and/or any applicable sta (Guidelines, Table 6 and sE3.1. Refer also to Appendix C in this BM The assessment conducted for the bushfire management plan include development can and will comply with the requirements.  However, the applicable class of road, the associated technical recompliance, will need to be confirmed with the relevant local governments.	PWEA Subdiandard in the P).  Dicates that requirement	vision ( ne local it is likel	Guidelines, Li governmen by that the pro- ubsequent p	iveable t area" oposed roposal					
	] 0	A traversable verge is available adjacent to classified vegetation	(Guidelines	, E3.1), (	as recommer	nded.					
		<b>g Assessment Details:</b> Milyeannup Coast Road and Woodarburrup Froads.	Road meets	the tec	chnical requir	ements					
A5.14	If Inte	ernal access/private driveway - technical requirements A	pplicable:	Yes	Compliant:	Yes					
	□⊘	The internal vehicular access/private driveway length is no greate need to be met.	er than 70m.	No tec	chnical requir	ements					
<b>V</b>		The technical construction requirements for widths, clearand (Guidelines, Table 6. Refer also to Appendix C in this BMP), can an				curves					



$\square$ $\square$ Passing bays can and will be installed every 200m with a minimum length of 20m and a minimum additional trafficable width of 2m.									
	The turnaround area requirements (Guidelines, Figure 28, and within 30 and will be complied with.	)m of t	the hab	oitable buildin	g) can				
Supporting	Assessment Details: The internal driveway to the Rural Produce Store me	eets th	ie techi	nical requiren	nents.				
A5.14g Inte	ernal access/private driveway - availability Applica	able:	Yes	Compliant:	Yes				
	The internal vehicular access/private driveway can provide emergency staff in the event of a bushfire.	acce'	ess/egre	ess for all patro	ons and				
	It is possible to provide at least two internal access/egress points to the	public	road r	etwork.					
Supporting Store.	Assessment Details: There is one vehicle access way for patrons and g	juests :	to use t	o the Rural Pi	roduce				
A5.14h Sig	nage Applica	able:	Yes	Compliant:	Yes				
	The required information to inform the actions of those persons onsite prominently displayed within the site.	in the	event	of a bushfire	will be				
	This information will include evacuation routes and distance and the si will be established by the Bushfire Emergency Plan (or Information) the the proposed use.								
Supporting	Assessment Details: A copy of the Evacuation Poster will be displayed in	n the R	Rural Pro	oduce Store.					
	A5.15 Provision of Water for Firefighting Purposes								
A5.15a Rei	ticulated supply Applica	able:	No	Compliant:	N/A				
	A reticulated water supply is available to the proposed development. I are provided in accordance with the specifications of the relevant wat				ction(s)				
	A reticulated water supply is available to the proposed development. He be provided in accordance with the specifications of the relevant water				and will				
Supporting	Assessment Details: None required.								
A5.15b No	n-reticulated supply – water tank capacity  Applica	able:	Yes	Compliant:	Yes				
	A static water supply (tank) for firefighting purposes will be installed or water supply that is required for drinking and other domestic purposes.	n the	lot that	is additional	to any				
	A water tank(s) will be provided with a minimum capacity of 10,000 litres to a maximum of 50,000 litres.	es/500	m <sup>2</sup> of h	abitable floor	space				
	g Assessment Details: The Rural Produce Store is adjacent to a header ta ator power and is available for fire-fighting purposes.	nk whi	ich is fe	d from the bo	ore. This				



A5.15c Non-reticulated supply – technical requirements A	Applicable:	Yes	Compliant:	Yes
The technical requirements (design, construction materials, pipe   Guidelines (Element 4, Schedule 2, s2.2) and/or the relevant local with.				-
Supporting Assessment Details: The Shire of Nannup has indicated that the supported, on the proviso that it remains topped up from the bore. (Evidence Refer to information contained in Appendix D for the firefighting water requirements.	e provided	within th	e report)	



----- Forwarded message ------

From: Jane Buckland < <a href="mailto:jane.buckland@nannup.wa.gov.au">jane.buckland@nannup.wa.gov.au</a>>

Date: Mon, 7 Aug 2023 at 3:02 pm

Subject: RE: Cottage - Bushfire site visit report

To: kristy thompson < <a href="mailto:kristythompson510@gmail.com">kristythompson510@gmail.com</a>>

Hi Kristy,

As previously advised, a BMP and BEEP will be required for your Development Application due to site characteristics, proposed access and the nature of the proposal. It appears there will be very long driveways (one way in, one way out) servicing the different development precincts.

There will be a need to clarify the extent of clearing of native vegetation to achieve bushfire technical requirements for access.

The Shire is happy to accept hard sand base on tracks if the bushfire practitioner and yourselves can demonstrate the tracks are suitable for year round 2WD access. There may be a need to add some gravel in lower lying areas or crossing drainage lines.

The Shire agrees that Water Corporation need to confirm acceptance of access through Reserve 12457 in writing and clarify whether or not an easement is required. It may be preferable if Water Corporation jointly sign the Development Application form as land managers given their land is critical to the application. We suggest the application includes Reserve 12457 to formalise matters.

The Shire also suggests there may be a need for 3 strategic dedicated water tanks – near the cottage, northern camping area (accessed from Water Corporation land) and southern camping area. A connection to the residential bore is acceptable provided the tank is always topped up.

In regards to the northern access over the Scott River and the other tributary, the bridge/culvert should be able to accommodate the weight and width of bushfire appliances, if not it should be upgraded so that it can. Any changes to river/creek crossings will need to address Aboriginal heritage requirements.

I hope the above helps but if you have any questions, please let me know.

Kind regards,

Jane Buckland

## **Development Services Coordinator**



Adam Street, Nannup, WA

PO Box 11, Nannup, WA 6275

P: 9756 1018

www.nannup.wa.gov.au



# 6. RESPONSIBILITIES FOR IMPLEMENTATION AND MANAGEMENT OF THE BUSHFIRE PROTECTION MEASURES

# 6.1 Developer/Landowner Responsibilities – Prior to Opening

	DEVELOPER/LANDOWNER RESPONSIBILITIES – PRIOR TO OPENING								
No.	Implementation Actions								
	Establish the Asset Protection Zone (APZ) around campsites to satisfy:								
1	<ul> <li>The dimension requirements established by the assessed site-specific conditions and the determined BAL rating, or the dimensions established by the annually issued local government Firebreak Notice – whichever is greater [refer to Section 5.4 of this BMP – including the notes 'What Sized APZ is to be Installed on the Lot']; and</li> </ul>								
	<ul> <li>The standards established by the Guidelines DPLH, 2021 v1.4, Schedule 1, or as varied by the local government through their annually issued Firebreak Notice.</li> </ul>								
	This is the responsibility of the developer/landowner before operating.								
	The subject site is to be compliant with current version of the Shire of Nannup's Fire Break Order issued under s33 of the Bushfires Act 1954.								
2	This may include specifications for asset protection zones that differ from Schedule 1 in the Guidelines DPLH, 2021 v1.4, with the intent to better satisfy local conditions.								
	[Refer to Section 5.3 and the information presented in Appendix B).								
3	Prior to operation, a copy of the Bushfire Emergency Plan (BEP) must be provided, and occupants 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 of this BMP. The BEP 'Pre-Season Preparation Procedure' instructions must be complied with.								
4	Prior to operation, 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.								
5	Prior to operation, all actions contained within the 'Pre-Season Preparation Procedure' established by the Bushfire Emergency Plan, must be completed.								
6	Prior to operation, signage must be prominently displayed at the entrance to the camp grounds that informs the actions of those persons onsite in the event of a bushfire.								
	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.								
7	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).
8	Construct the vehicular access routes within the property including the Emergency Access Way to comply with the technical requirements referenced in the BMP and the relevant local government annual firebreak notice.
9	Establish a 20,000 litre static water tank dedicated for fire fighting purposes at each camp area. Ensure the tanks are metal, and couplings and fittings comply with the technical requirements (Appendix D)



# 6.2 Landowner/Occupier Responsibilities – Ongoing Management

	LANDOWNER/OCCUPIER – ONGOING MANAGEMENT
No.	Management Actions
1	<ul> <li>Maintain the Asset Protection Zone (APZ) around buildings, water tanks (and other structures as required) to satisfy:</li> <li>The dimension requirements established by the assessed site-specific conditions and the building's determined BAL rating, or the dimensions established by the annually issued local government Firebreak Notice – whichever is greater [refer to Section 5.4 of this BMP – including the notes 'What Sized APZ is to be Installed on the Lot']; and</li> <li>The standards established by the Guidelines DPLH, 2021 v1.4, Schedule 1, or as varied by the local</li> </ul>
	government through their annually issued Firebreak Notice.  The subject site is to be compliant with current version of the Shire of Nannup's Fire Break Compliance Notice
2	issued under s33 of the Bushfires Act 1954.  This may include specifications for asset protection zones that differ from Schedule 1 in the Guidelines DPLH, 2021 v1.4, with the intent to better satisfy local conditions.
	[Refer to Section 5.3 and the information presented in Appendix B).
3	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.
4	Maintain vehicular access route within the property to comply with the technical requirements referenced in the BMP and the relevant local government annual firebreak notice.
5	Maintain the static firefighting water supply tanks and associated pipes/fittings/pump and vehicle hardstand in good working condition.
	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.
	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.
6	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 the 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).



Ensure all future buildings the landowner/lessee 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.

7



## APPENDIX A: SUBJECT SITE BAL ASSESSMENT INFORMATION AND ADDITIONAL DATA

# Assessed Site 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.

				Method 1	Applied FDI:	80
Relevant Jurisdiction:	WA	Region:	Whole State	Method 2	Applied FFDI:	N/A
				Memod 2	Applied GFDI:	110

## 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 cl 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 maintained in a permanently low threat, minimal fuel condition, satisfying AS 3959:2018 s2.2.3.2(f), and there is sufficient justification to reasonable expect that this modified state will exist in perpetuity.

## 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					



VEGETATION AREA 1 COTTAGE										
Classification A. FOREST										
Types Identified	С	)pen	forest A-0	3	Close	d scrub D-13				
Exclusion Clause	N/A									
Effective Slope	Measui	red	d/slop	oe 4 degrees	Appl	ied Range (Method	1)	Downslope	>0-5 degrees	
Foliage Cover (all	layers)	;	>90% Shrub/Heath Height Up to 6m Tre		ee Height	Up to 30m				
Dominant & Sub-D Layers (species as relevant)	ominant			rri, Jarrah) along , foliage cover 7	_	, Peppermint, Bank	csia	and Melale	uca trees to a	
Understorey:		Leaf	litter, nati	ve grasses and l	oushes	, saplings, Xanthoria				
Additional Justification: Not Required.										
Post Development Assumptions:			te vegeto ernment	ation can be r	manag	jed or removed w	ith	permission f	rom the Local	





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PHOTO ID: 4 (vegetation in background)



			VEGETATION AR	EA 2 C	COTTAGE			
	A. FOREST							
Open forest A-03			3	Closed scrub D-13				
N/A	4							
Measui	red d/slope 6.8 degrees		e 6.8 degrees	Applied Range (Method		1) Downslope	>5-10 degrees	
ayers)	>90% Shrub/Heath I		Shrub/Heath H	eight	Up to 6m	Tree Height	Up to 30m	
ominant					, Peppermint, Bank	ksia and Melak	euca trees to a	
	Leaf	litter, nati	ve grasses and b	oushes	, saplings, Xanthoria			
ıtion:	n: Not Required.							
	Onsite vegetation can be managed or removed with permission from the Local Government							
	N/A  Measurayers) ominant	N/A  Measured  ayers)  ominant  Euco heig  Leaf  tion:  Not I	N/A  Measured d/slope ayers) >90%  ominant Eucalypt (Maneight of 15m  Leaf litter, nation: Not Required.  Onsite vegeto	A. FO Open forest A-03  N/A  Measured d/slope 6.8 degrees  ayers) >90% Shrub/Heath Heath Heath of 15m, foliage cover 7  Leaf litter, native grasses and be strion: Not Required.  Onsite vegetation can be respectively.	A. FOREST  Open forest A-03  Closed  N/A  Measured d/slope 6.8 degrees Appli ayers) >90%  Shrub/Heath Height  ominant  Eucalypt (Marri, Jarrah) along with height of 15m, foliage cover 70%.  Leaf litter, native grasses and bushes tition:  Not Required.  Onsite vegetation can be managed.	Open forest A-03  Closed scrub D-13  N/A  Measured d/slope 6.8 degrees Applied Range (Method ayers)  >90%  Shrub/Heath Height Up to 6m  Eucalypt (Marri, Jarrah) along with , Peppermint, Bank height of 15m, foliage cover 70%.  Leaf litter, native grasses and bushes, saplings, Xanthoria tion:  Not Required.  Onsite vegetation can be managed or removed w	A. FOREST  Open forest A-03  Closed scrub D-13  N/A  Measured d/slope 6.8 degrees Applied Range (Method 1)  Open forest A-03  Applied Range (Method 1)  Downslope ayers)  >90%  Shrub/Heath Height Up to 6m  Tree Height  Eucalypt (Marri, Jarrah) along with , Peppermint, Banksia and Melale height of 15m, foliage cover 70%.  Leaf litter, native grasses and bushes, saplings, Xanthoria  Ition:  Not Required.  Onsite vegetation can be managed or removed with permission	





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PHOTO ID: 7 PHOTO ID: 8



								\ FEANNING
				VEGETATION AR	EA 3 C	COTTAGE		
Classification				A. FO	REST			
Types Identified		)pen	forest A-0	3	Close	d scrub D-13		
Exclusion Clause	N/A							
Effective Slope	Measu	red	d/slop	e 11 degrees	Appl	ied Range (Method	1) Downslope	>10-15 degrees
Foliage Cover (all	layers)		>90%	Shrub/Heath He	eight	Up to 6m	Tree Height	Up to 30m
Dominant & Sub-E Layers (species as relevant)		Eucalypt (Marri, Jarrah) along with , Peppermint, Banksia and Melaleuca theight of 15m, foliage cover 70%.				euca trees to a		
Understorey:		Leaf litter, native grasses and bushes, saplings, Xanthoria						
Additional Justifica	ation:	Not	Required.					
Post Development Assumptions:	t		te vegeto ernment	ation can be r	nanag	ged or removed wi	th permission	from the Local
				38 , 4 9m, 282 3 12 59 30 pm			3417/58 11 10 J	12 25 27 5 m 267° 10 20 22 30 20 20 20 20 20 20 20 20 20 20 20 20 20

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				VEGETATION AR	EA 4 (	COTTAGE			
Classification		G. GRASSLAND							
Types Identified	So	Sown pasture G-26							
Exclusion Clause	N/A								
Effective Slope	Measui	red	ed d/slope 5.8 degrees Applied Range (Method 1) Downslope >			e >0-5 degrees			
Foliage Cover (all	layers)	Shrub/Heath Height Tree Height							
Dominant & Sub-D Layers (species as relevant)	ominant	Sowr	n pasture	for stock.					
Understorey:		Not r	equired.						
Additional Justifica	ation:	Not required.							
Post Development Assumptions:		Onsite vegetation can be managed and removed.							





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VEGETATION AREA 5 COTTAGE									
Classification		EXCLUDED							
Types Identified									
Exclusion Clause	exclusion Clause 2.2.3.2 (e) non-vegetated areas and (f) low threat vegetation - high moisture content.								
Effective Slope	Measui	ed -			Applied Range (Method 1)				-
Foliage Cover (all	layers)		-	Shrub/Heath H	eight	-	Tre	ee Height	-
Dominant & Sub-D Layers (species as relevant)	ominant	Drive cotte		arparks, vegeta	ble po	itch and managed	d gar	dens around	d the house and
Understorey:		Not applicable							
Additional Justifica	ation:	n: It is assumed that these areas will be maintained in perpetuity.							
Post Development Assumptions:		Not required							





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,	VEGETATIO	ON A	REA 1 NAT	URE STAY CAMP	GROU	NDS & SEASONAL CA	<b>AMP</b>	GROUND	
Classification		G. GRASSLAND							
Types Identified	Sc	Sown pasture G-26							
Exclusion Clause	N/A								
Effective Slope	Measu	sured flat 0 degrees Applied Range (Method 1) Upslope or flat 0				flat 0 degrees			
Foliage Cover (all le	ayers)		Shrub/Heath Height Tree Height						
Dominant & Sub-Do Layers (species as r		Sowi	n pasture	for stock.					
Understorey:		Not	required.						
Additional Justifica	tion:	Not required.							
Post Development Assumptions:		Onsite vegetation can be managed and removed.							





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PHOTO ID: 30



PHOTO ID: 31



						BUSHFIRE PRONE PLANNING	
	VEGETATIO	ON AREA 2 NA	TURE STAY CAMPGR	OUNDS & SEASONAL C	AMPGROUND		
Classification			D. SCRU	В			
Types Identified	С	)pen scrub D-1	4 Close	d (low) heath C-10			
Exclusion Clause	N/A						
Effective Slope	Measur	red flat	0 degrees A	pplied Range (Method	d 1) Upslope or	r flat 0 degrees	
Foliage Cover (all	layers)	10-30%	Shrub/Heath Heig	ht <2m	Tree Height	Up to 30m	
Dominant & Sub-D Layers (species as		Italiaga cavar lypical at cagetal grade with eapply calls Shribe Silm in haight. Inc					
Understorey:		Coastal heath, grasses, native bushes, fallen logs and branches.					
Additional Justifica	ation:	Not required.					
Post Development Assumptions:		Onsite vegetation can be managed and removed.					
		183417 58 11 57 16 July 2	19" - 1,6m, 249" 028   21.58 pm			5'248' 2.1m, 229' uly 2023 1'22'02 pm	
	PHOT	TO ID: 32 PHOTO ID: 33					
	-						











PHOTO ID: 36

PHOTO ID: 37





**PHOTO ID: 38** 

PHOTO ID: 39





PHOTO ID: 40

PHOTO ID: 41



PHOTO ID: 42



,	VEGETATIO	ON AI	REA 3 NAT	URE STAY CAMP	GROU	NDS & SEASONAL CA	AMP	GROUND	
Classification		G. GRASSLAND							
Types Identified	Sc	Sown pasture G-26							
Exclusion Clause	N/A								
Effective Slope	Measu	red d/slope 2.4 degrees Applied Range (Method 1) Downslope >0-5			e >0-5 degrees				
Foliage Cover (all le	ayers)	Shrub/Heath Height Tree Height							
Dominant & Sub-Do Layers (species as r		Sowi	n pasture	for stock.					
Understorey:		Noti	required.						
Additional Justifica	tion:	Not required.							
Post Development Assumptions:		Onsite vegetation can be managed and removed.							



PHOTO ID: 23 (vegetation for this area is at the rear of the picture. Not possible to enter the paddocks due to biosecurity)



PHOTO ID: 24 (vegetation for this area is at the rear of the picture. Not possible to enter the paddocks due to bio-security)



PHOTO ID: 25 (vegetation for this area is at the rear of the picture. Not possible to enter the paddocks due to biosecurity)



## 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 <u>determined</u> 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 <u>indicative</u> and require later confirmation 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, <u>indicative BAL</u> 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 <u>determined</u> 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.



## APPENDIX B: ONSITE VEGETATION MANAGEMENT - THE APZ

## THE ASSET PROTECTION ZONE (APZ)

This is an area surrounding a habitable building containing either no fire fuels and/or low threat fire fuels that are maintained in a minimal fuel condition. The primary objectives include:

- To ensure the building is sufficiently separated from the bushfire hazard to limit the impact of its direct attack
  mechanisms. That is, the dimensions of the APZ will, for most site scenarios, remove the potential for direct flame
  contact on the building, reduce the level of radiant heat to which the building is exposed and ensure some
  reduction in the level of ember attack (with the level of reduction being dependent on the vegetation types
  of present);
- To ensure any vegetation retained within the APZ presents low threat levels and prevents surface fire spreading to the building;
- To ensure other combustible materials that can result in consequential fire (typically ignited by embers) within both the APZ and parts of the building, are eliminated, minimised and/or appropriately located or protected. The explanatory notes in the Guidelines provide some guidance for achieving this objective and other sources are available. This is a primary cause of building loss in past bushfire events; and
- Provide a defendable space for firefighting activities.

## B1: The Dimensions and Location of the APZ to be Established and Maintained

## THE APZ DIMENSIONS

The determined BAL rating of the relevant building/structure will establish the corresponding bushfire construction requirements that are to apply. The minimum required APZ dimensions must be those that will ensure the retention of the determined BAL rating. This ensures that the potential radiant heat exposure of the building/structure will be limited to the level that the applied construction requirements are designed to resist.

The size of the APZ that is to be established and maintained surrounding the subject building/structure, will be the largest that is defined by either:

- The dimensions corresponding to the determined BAL rating stated on the BAL Certificate and which accounts for the specific site conditions; or
- The dimensions established by the relevant local government's annual firebreak notice as can be issued under s33 of the Bushfires Act 1954. This may state a required single minimum dimension for an APZ surrounding a building, or a dimension that varies with slope of the land under the different areas of bushfire prone vegetation that impact the building. Check the notice annually for revisions to requirements.

	Classified	Minimum Required Separation Distances (m)						
Relevant Buildings(s)	Vegetation	C	Stated in the Relevant					
	[refer Fig 3.1]	BAL-29	BAL-19	BAL-12.5	BAL-LOW	Firebreak Notice		
	Forest	27m				20m		
Existing Cottage and Proposed	Forest	33m				20m		
Rural Produce Store	Forest	42m				20m		
	Grassland	10m				20m		
Nature Stay Campground & Seasonal Campgrounds	Grassland	8m						
	Scrub	13m						
	Grassland	9m						



## THE APZ LOCATION

The APZ should be contained solely within the boundaries of the lot, except in instances where the neighbouring lot(s) or adjacent public land is non-vegetated or will be maintained to a low-fuel state in perpetuity, and this can be justified. Where possible, planning for siting and design of development should incorporate elements that include non-vegetated areas (e.g., roads / parking / drainage / water body) and/or formally managed areas of vegetation (public open space / recreation areas / services installed in a common section of land), as either part of the required APZ dimensions for each lot or to additionally increase separation distances to reduce exposure further.

# B2: The Standards for the APZ as Established by the Guidelines (DPLH, v1.4)

Within the Guidelines (source: https://www.wa.gov.au/government/document-collections/state-planning-policy-37-planning-bushfire-prone-areas), the management Standards are established by:

- Schedule 1: Standards for Asset Protection Zones (see extract below) established by the Guidelines; and
- The associated explanatory notes (Guidelines E2) that address (a) managing an asset protection zone (APZ) to a low threat state (b) landscaping and design of an asset protection zone and (c) plant flammability.



## **ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT**

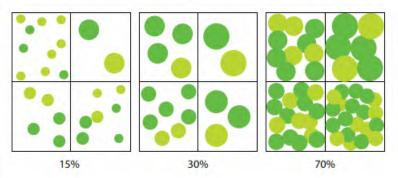
# SCHEDULE 1: STANDARDS FOR ASSET PROTECTION ZONES

OBJECT	REQUIREMENT					
Fences within the APZ	<ul> <li>Should be constructed from non-combustible materials (for example, iron, brick, limestone, metal post and wire, or bushfire-resisting timber referenced in Appendix of AS 3959).</li> </ul>					
Fine fuel load (Combustible, dead vegetation matter <6 millimetres in thickness)	<ul> <li>Should be managed and removed on a regular basis to maintain a low threat state.</li> <li>Should be maintained at &lt;2 tonnes per hectare (on average).</li> <li>Mulches should be non-combustible such as stone, gravel or crushed mineral earth or wood mulch &gt;6 millimetres in thickness.</li> </ul>					
Trees* (>6 metres 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.					
	<ul> <li>Lower branches and loose bark should be removed to a height of two metres above the ground and/or surface vegetation.</li> </ul>					
	<ul> <li>Canopy cover within the APZ should be &lt;1.5 per cent of the total APZ area.</li> </ul>					
	<ul> <li>Tree canopies at maturity should be at least five metres apart to avoid forming a continuous canopy. Stands of existing mature trees with interlocking canopies may be treated as an individual canopy provided that the total canopy cover within the APZ will not exceed 15 per cent and are not connected to the tree canopy outside</li> </ul>					

the APZ.



Figure 19: Tree canopy cover – ranging from 15 to 70 per cent at maturity



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 noncombustible 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.

# B3: The Standards for the APZ as Established by the Local Government

Refer to the Firebreak 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 and DFES as per Section 4.5.3 of the Guidelines.

A copy of the relevant annual 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.

<sup>\*</sup> Plant flammability, landscaping design and maintenance should be considered – refer to explanatory notes



#### **B4**: Maintaining Low Threat and Non-Vegetated Areas Excluded from Classification

AS 3959 establishes the methodology for determining a bushfire attack level (BAL). The methodology includes the classification of the subject site's surrounding vegetation according to their 'type' and the application of the corresponding bushfire behaviour models to determine the BAL. Certain vegetation can be considered as low threat and excluded from classification. Where this has occurred in assessing the site, the extract from AS3959:2018 below state the requirements (including the size of the vegetation area if relevant to the assessment) for maintenance of those areas of land.

> AS 3959:2018 15

## 2.2.3.2 Exclusions-Low threat vegetation and non-vegetated areas

The following vegetation shall be excluded from a BAL assessment:

- Vegetation of any type that is more than 100 m from the site. (a)
- Single areas of vegetation less than 1 ha in area and not within 100 m of other areas of vegetation being classified vegetation.
- 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.
- 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.
- Non-vegetated areas, that is, areas permanently cleared of vegetation, including waterways, exposed beaches, roads, footpaths, buildings and rocky outcrops.
- 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:

- 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).
- 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.

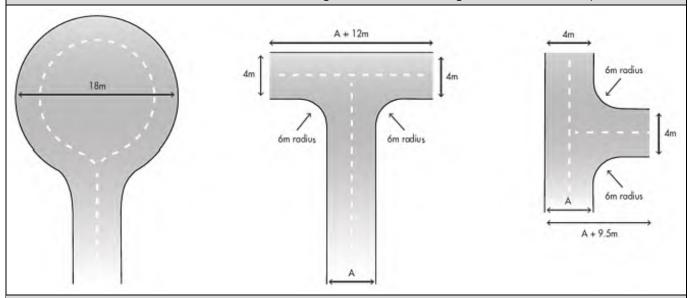


## APPENDIX C: TECHNICAL REQUIREMENTS FOR VEHICULAR ACCESS

The design/layout requirements for access are established by the acceptable solutions of the Guidelines (DPLH, 2021 v1.4) Element 3 and vary dependent on the access component, the land use and the presence of 'vulnerable' persons. Consequently, the best reference source are the Guidelines. The technical requirements that are fixed for all components and uses are presented in this appendix.

GUIDELINES TABLE 6, EXPLANATORY NOTES E3.3 & E3.6 AND RELEVANT ACCEPTABLE SOLUTIONS							
	Vehicular Access Types / Components						
Technical Component	Public Roads	Emergency Access Way <sup>1</sup>	Fire Service Access Route <sup>1</sup>	Battle-axe and Private Driveways <sup>2</sup>			
Minimum trafficable surface (m)	In accordance with A3.1	6	6	4			
Minimum Horizontal clearance (m)	N/A	6	6	6			
Minimum Vertical clearance (m)	4.5						
Minimum weight capacity (t)	15						
Maximum Grade Unsealed Road <sup>3</sup>			1:10 (10%)				
Maximum Grade Sealed Road <sup>3</sup> Maximum Average Grade Sealed Road	As outlined in the IPWEA	1:7 (14.3%)					
	Subdivision Guidelines	1:10 (10%)					
Minimum Inner Radius of Road Curves (m)		8.5					

## Turnaround Area Dimensions for No-through Road, Battle-axe Legs and Private Driveways 4



## Passing Bay Requirements for Battle-axe leg and Private Driveway

When the access component length is greater than the stated maximum, passing bays are required every 200m with a minimum length of 20m and a minimum additional trafficable width of 2m (i.e. the combined trafficable width of the passing bay and constructed private driveway to be a minimum 6m).

# Emergency Access Way – Additional Requirements

Provide a through connection to a public road, be no more than 500m in length, must be signposted and if gated, gates must be open the whole trafficable width and remain unlocked.

<sup>&</sup>lt;sup>1</sup> To have crossfalls between 3 and 6%.

<sup>&</sup>lt;sup>2</sup> Where driveways and battle-axe legs are not required to comply with the widths in A3.5 or A3.6, they are to comply with the Residential Design Codes and Development Control Policy 2.2 Residential Subdivision.

<sup>&</sup>lt;sup>3</sup> Dips must have no more than a 1 in 8 (12.5% or 7.1 degree) entry and exit angle.

<sup>&</sup>lt;sup>4</sup> The turnaround area should be within 30m of the main habitable building.



# APPENDIX D: TECHNICAL REQUIREMENTS FOR FIREFIGHTING WATER SUPPLY

# D2: Non-Reticulated Areas – Static Supply

For specified requirements, refer to the Guidelines Element 4: Water – Acceptable Solution A4.2, Explanatory Notes E4 (that provide water supply establishment detail under the headings of water supply; independent water and power supply; strategic water supplies, alternative water sources and location of water tanks) and the technical requirements established by Schedule 2 (reproduced below).

## SCHEDULE 2: WATER SUPPLY DEDICATED FOR BUSHFIRE FIREFIGHTING PURPOSES

## 2.1 Water supply requirements

Water dedicated for firefighting should be provided in accordance with Table 7 below, and be in addition to water required for drinking purposes.

Table 7: Water supply dedicated for bushfire firefighting purposes

PLANNING APPLICATION	NON-RETICULATED AREAS
Development application	10,000L per habitable building
Structure Plan / Subdivision: Creation of 1 additional lot	10,000L per lot
Structure Plan / Subdivision: Creation of 3 to 24 lots	10,000L tank per lot or 50,000L strategic water tank
Structure Plan / Subdivision: Creation of 25 lots or more	50,000L per 25 lots or part thereof Provided as a strategic water tank(s) or 10,000L tank per lot

## 2.2 Technical requirements

## 2.2.1 Construction and design

An above-ground tank and associated stand should be constructed of non-combustible material. The tank may need to comply with AS/NZS 3500.1:2018.

Below ground tanks should have a 200mm diameter access hole to allow tankers or emergency service vehicles to refill direct from the tank, with the outlet location clearly marked at the surface. The tank may need to comply with AS/NZS 3500.1:2018. An inspection opening may double as the access hole provided that the inspection opening meets the requirements of AS/NZS 3500.1:2018. If the tank is required under the BCA as part of fire hydrant installation, then the tank will also need to comply with AS 2419.

Where an outlet for an emergency service vehicle is provided, then an unobstructed, hardened ground surface is to be supplied within four metres of any water supply.

## 2.2.2 Pipes and fittings

All above-ground, exposed water supply pipes and fittings should be metal. Fittings should be located away from the source of bushfire attack and be in accordance with the applicable section below, unless otherwise specified by the local government.

## 2.2.2.1 Fittings for above-ground water tanks:

- · Commercial land uses: 125mm Storz fitting; or
- Strategic water tanks: 50mm or 100mm (where applicable and adapters are available) male camlock coupling with full flow valve; or
- Standalone water tanks: 50mm male camlock coupling with full flow valve; or
- Combined water tanks: 50mm male camlock coupling with full flow valve or a domestic fitting, being a standard household tap that enables an occupant to access the water supply with domestic hoses or buckets for extinguishing minor fires.

## 2.2.2.2 Remote outlets

In certain circumstances, it may be beneficial to have the outlet located away from the water supply. In such instances in which a remote outlet is to be used, the applicant should consult the local government and DFES on their proposal.



# **EXAMPLE CONSTRUCTION AND 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