



BushfireWest

Bushfire Management Plan **incl. Bushfire Risk Assessment**

Development Application
Lot 9980 Dardadine Road, Dardadine

Bushfire West Pty Ltd
www.bushfirewest.com.au



Ref: 201121
Version: 1.2
Feb 2021

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.

Bushfire Management Plan and Site Details

Site Address / Plan Reference:	Lot 9980 Dardadine Rd		
Suburb:	Dardadine	State:	WA
		P/code:	6392
Local government area:	West Authur		
Description of the planning proposal:	Nature based park, shop and dwelling.		
BMP Plan / Reference Number:	201121	Version:	1.2
		Date of Issue:	26 Feb 2021
Client / Business Name:	Dean & Kelly Bruins		

Reason for referral to DFES	Yes	No
Has the BAL been calculated by a method other than method 1 as outlined in AS3959 (tick no if AS3959 method 1 has been used to calculate the BAL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Have any of the bushfire protection criteria elements been addressed through the use of a performance principle (tick no if only acceptable solutions have been used to address all of the BPC elements)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the proposal any of the following special development types (see SPP 3.7 for definitions)?		
Unavoidable development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Strategic planning proposal (including rezoning applications)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Minor development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
High risk land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vulnerable land-use	<input checked="" type="checkbox"/>	<input type="checkbox"/>

If the development is a special development as listed above, explain why the proposal is considered to be one of the above listed classifications (E.g. considered vulnerable land-use as the development is for accommodation of the elderly, etc.)?

Tourism. Short-stay camping and day visitation.

Note: The decision maker (e.g. the local government or the WAPC) should only refer the proposal to DFES for comment if one (or more) of the above answers are ticked "Yes".

BPAD Accredited Practitioner Details and Declaration

Name	Accreditation Level	Accreditation No.	Accreditation Expiry
Jeremy Durston	Level 3	BPAD-36525	April 2022
Company		Contact No.	
Bushfire West Pty Ltd		0403 328 835	

I declare that the information provided in this bushfire management plan is to the best of my knowledge true and correct.

Signature of Practitioner



Date

26 Feb 2021

REPORT DETAILS

Subject Land

Street No.	Lot No.	Pin	Street Name
	9980	554802	Dardadine Road
Locality	Dardadine (6392)		
Zoning	Rural		
Land area	203.2237 ha		
Local Government	West Arthur		
Proposal description	Development application for: Nature-based park with camp kitchen & ablutions; Souvenir & coffee shop; and House.		

Document Reference

Version	Date	Details
Ref: 201121		
1.0	30 Jan 2021	Bushfire Management Plan, incl. bushfire risk assessment – development application.
1.1	11 Feb 2021	Amended fire-fighting water & minor edits.
1.2	26 Feb 2021	Addition of camp kitchen & ablutions.

Author

Practitioner	Accreditation Level	Accreditation No.
Jeremy Durston	Level 3	BPAD 36525

Report Limitations

The measures contained in this report are considered to be minimum standards only. Bushfire West Pty Ltd and the author do not guarantee that if such standards are complied with a building or property will not be damaged or that lives will not be harmed or lost during a bush fire event.

Bushfire and weather conditions can be extremely dangerous and unpredictable. The management of bushfire risk will depend on, among other things, the actions of property owners and/or occupiers over which the author has no control.

All surveys, forecasts, projections and recommendations made in this report are made in good faith on the basis of information available at the time. All maps included herein are indicative in nature and are not to be used for accurate calculations.

Notwithstanding anything contained therein, the author will not, except as the law may require, be liable for any loss or other consequences arising out of the services provided.

Jeremy Durston
jeremy@bushfirewest.com.au
Bushfire West Pty Ltd



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1.0 Summary

This Bushfire Management Plan including Bushfire Risk Assessment is for the development application for Lot 9980 Dardadine Road, Dardadine located in the Shire of West Arthur. The development proposal is for a nature-based park including camp kitchen & ablutions, a lavender farm with souvenir & coffee shop and a caretaker house (the proposal).

The development site is within a designated bushfire prone area and the proposal requires the application of *State Planning Policy No. 3.7: Planning in Bushfire Prone Areas (SPP 3.7)*. The proposal is considered to be a 'vulnerable land use' involving tourism and is subject to the Department of Planning Lands and Heritage *Position Statement: Tourism land uses in bushfire prone areas*.

The aim of this report is to reduce the threat to people, property and infrastructure in the event of a bushfire. The report includes a risk assessment of the proposal along with treatment measures of how the identified bushfire threat will be managed. Further, the proposal includes how the Bushfire Protection Criteria of the SPP3.7 Guidelines will be addressed to the extent possible.

After risk treatment the residual risk to people staying within the local, natural environment remains 'Medium' due to the ongoing possibility of being impacted by bushfire. However, the residual risk is assessed as acceptable and characteristic of tourism activities that are conducted within natural landscapes in bushfire prone areas.

With due regard to the Department of Planning Lands and Heritage *Position Statement: Tourism land uses in bushfire prone areas*, this report finds:

With the appropriate management and treatment of risk, including the adoption of bushfire emergency and evacuation procedures, the risk is considered Tolerable for the type and scale of the proposed development.

This report also determines the proposal complies with the following objectives of State Planning Policy 3.7:

1. It avoids any increase in the threat of bushfire to people, property and infrastructure.

The proposal avoids unacceptable bushfire hazard. The development locations are within areas initially assessed as Moderate hazard, with nearby areas of vegetation assessed as Extreme hazard. The risk treatments specified within this report are determined to mitigate the risk to a Tolerable level.

2. It reduces vulnerability to bushfire through the identification and consideration of bushfire risks in the design of the development and the decision-making process.

The bushfire risks have been identified, assessed and considered by the proposal, as described within this report. Vulnerability to bushfire has accordingly been reduced.

3. The design of the Development takes into account bushfire protection requirements and includes specific bushfire protection measures.

*The proposal takes into account the requirements for bushfire protection. Compliance with the Bushfire Protection Criteria of the SPP3.7 Guidelines is achieved for the proposed development, with reference to the *Position Statement: Tourism land uses in bushfire prone areas* and the *Position Statement: Demonstrating Element 1: Location and Element 2: Siting and Design*.*

4. Achieves an appropriate balance between bushfire risk management measures and biodiversity, conservation values, and environmental protection.

The proposal relies on maintaining the existing, natural environment. Minor vegetation modification and management is required only to establish Asset Protection Zones, as detailed within this report.

Additionally, the land uses of nature-based park and souvenir & coffee shop are vulnerable land uses due to the potential for visitors to be unfamiliar with the local area and the necessary responses during a bushfire event. Accordingly, a Bushfire Emergency Evacuation Plan is required and is included in the appendices to this report.

2.0 Proposal Details

2.1 Subject Site

Lot 9980 Dardadine Road is located in the Shire of West Arthur approximately 17km to the north-east of the Darkan townsite and 22km to the south of Williams. The 203ha site is rural land developed with a farm storage building, associated infrastructure and stock paddocks. The land is undulating and rises from approx. 262m AHD in the south to approx. 286m AHD in its northern corner. The site comprises cropping and grazing land interspersed with stands of native vegetation, with a larger area of native vegetation located in the eastern section of the land.

Figure 2A illustrates the location of the subject land within its surroundings.

2.2 Development Description

The proposal is for a nature-based park including camp kitchen & ablutions, a lavender farm with souvenir & coffee shop and a caretaker house all to be sited within the agricultural setting of the northern corner of the subject land.

The development will be integrated with the existing agricultural uses of the site. Visitors will travel to and from the site in private vehicles and will bring their own camping equipment, which may include camper-trailers and vans, to the nature-based park. An access track loop will provide two access points from Dardadine Road. Basic amenities will be provided for the nature-based park and visitors will essentially be self-sufficient. Management staff will be onsite at the farm when any visitors are present.

Figure 2B illustrates the area of the proposed development.

2.3 Bushfire Prone Areas

The subject land and the broader surrounding area are all identified as being Bushfire Prone on the Map of Bush Fire Prone Areas 2019 (OBRM, 2019), as illustrated in Figure 2C.

2.4 Existing Conditions

The subject land is bounded by Dardadine Road to the north-west, by Dardadine Road South to the south-west, by a large area of native vegetation to the south-east, and otherwise generally by agricultural land. The primary road access is via Dardadine Road which is a 20m wide, local road reserve with an unsealed surface that connects with Albany Hwy to the east and with the Williams-Darkan Road to the west.

An existing farm storage structure is located in the northern section of the land approx. 190m from Dardadine Road, with an existing farm access track in good order. No reticulated water supply is available. The land has multiple water storage dams and water storage tanks are also installed onsite.

The characteristics of the subject land correspond with the wider local area and district characteristics which generally comprise rural land interspersed with stands of native vegetation, including some larger vegetation reserves.

Figure 2D illustrates the broader local and district contexts.

2.5 Fire Control Order

The Shire of West Arthur Fire Break Notice, issued under the Bush Fires Act 1954, requires the following measures for all rural land from the 30th of September to the 15th of April each year:

A firebreak or a combination of firebreaks or closely grazed land is required to completely surround any rural homestead, buildings, haystacks, stacks of fodder, bulk fuel, drums and liquid petroleum. This may be:

- *a firebreak not less than 10 metres wide constructed immediately surrounding; if provided by cultivation, spraying or burning; or*
- *a firebreak at least 30 metres wide completely surrounding if provided by closely grazed land; with the outer 2.5 metres cultivated or completely free of flammable material as required under the definition of firebreak.*

Definition of Firebreak: A minimum of 2.5 metres wide, to bare mineral earth, with a vertical clearance of 4 metres.

A copy of the Shire of West Arthur Fire Break Notice is included in Appendix 2.

2.6 Vegetation – Modification & Clearing

The proposal relies on maintaining the existing environment with minor vegetation modification and management required only to establish Asset Protection Zones. This will primarily require the slashing of grass and trimming of trees in order to comply with Schedule 1: Standards for Asset Protection Zones from the Guidelines.

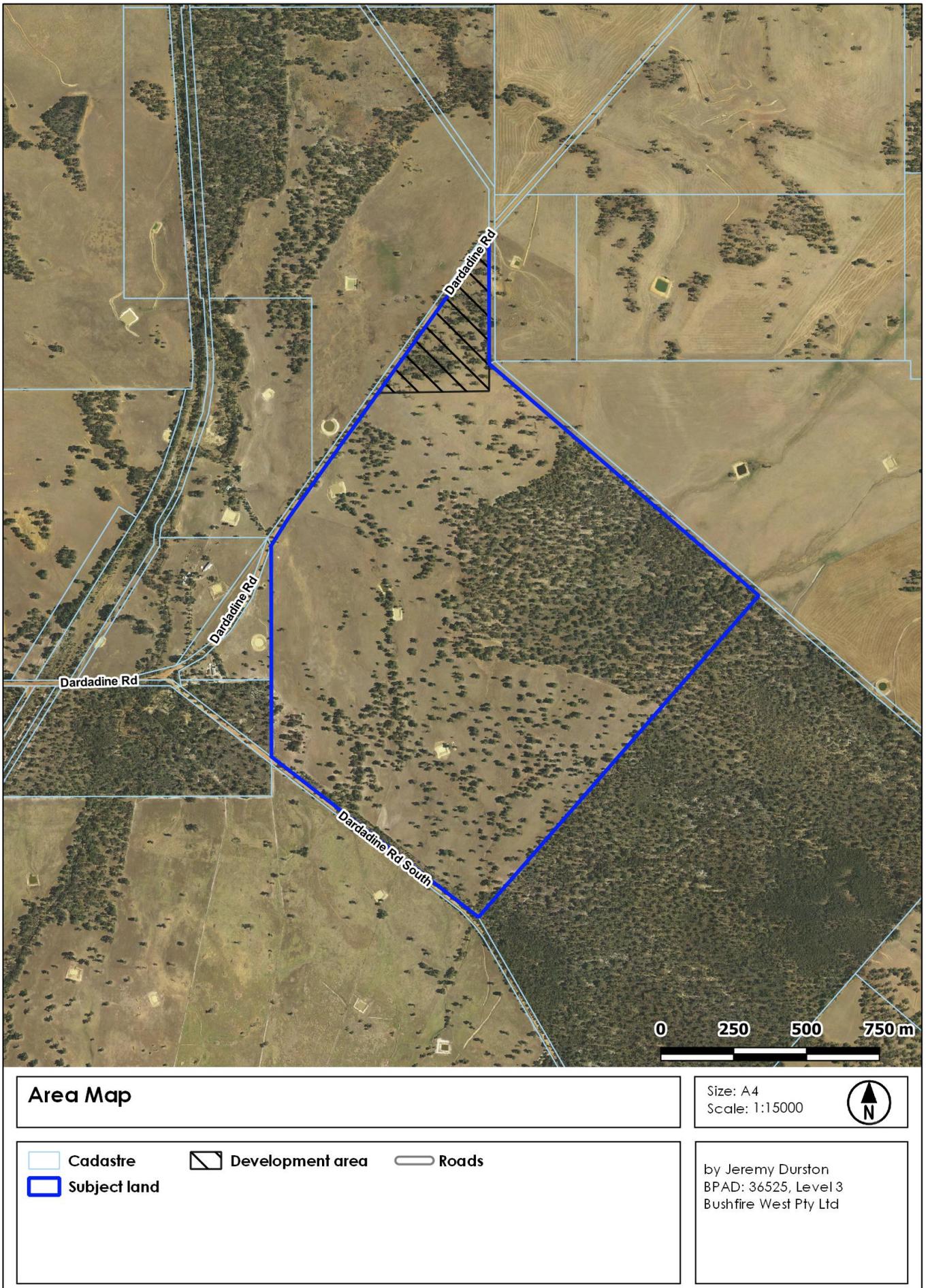


Figure 2A: Area Map

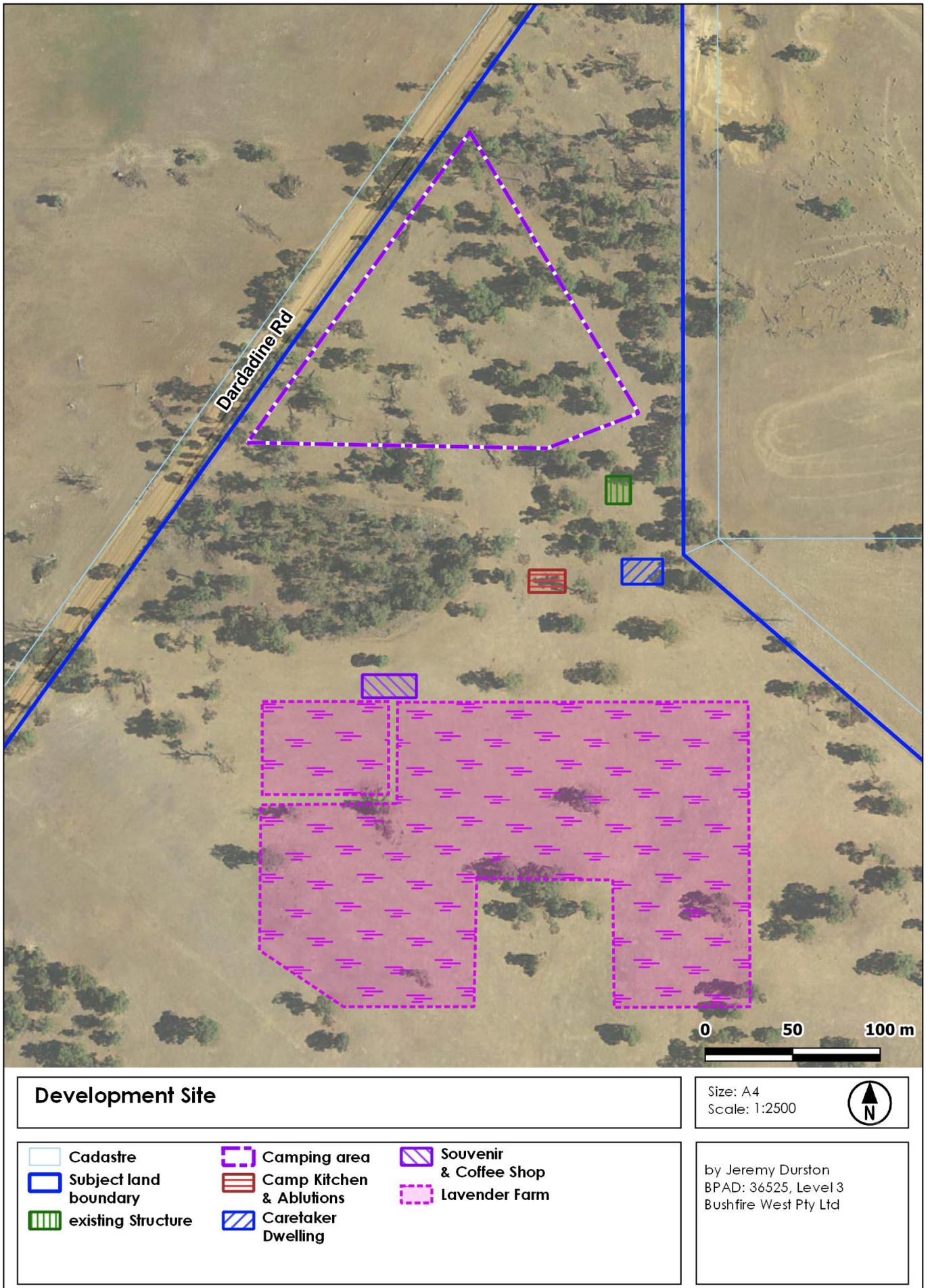


Figure 2B: Site Map

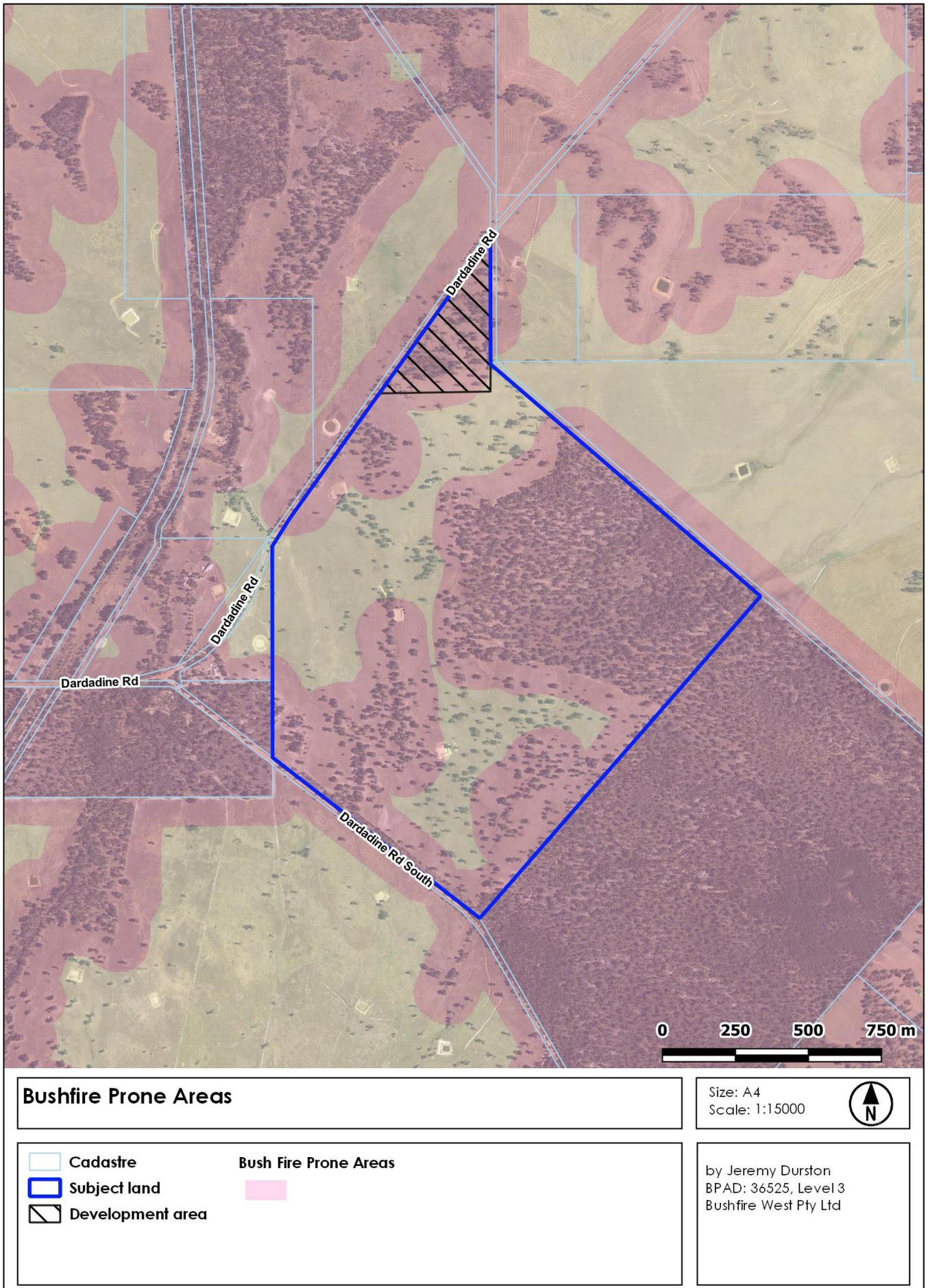


Figure 2C: Designated Bushfire Prone Area Map

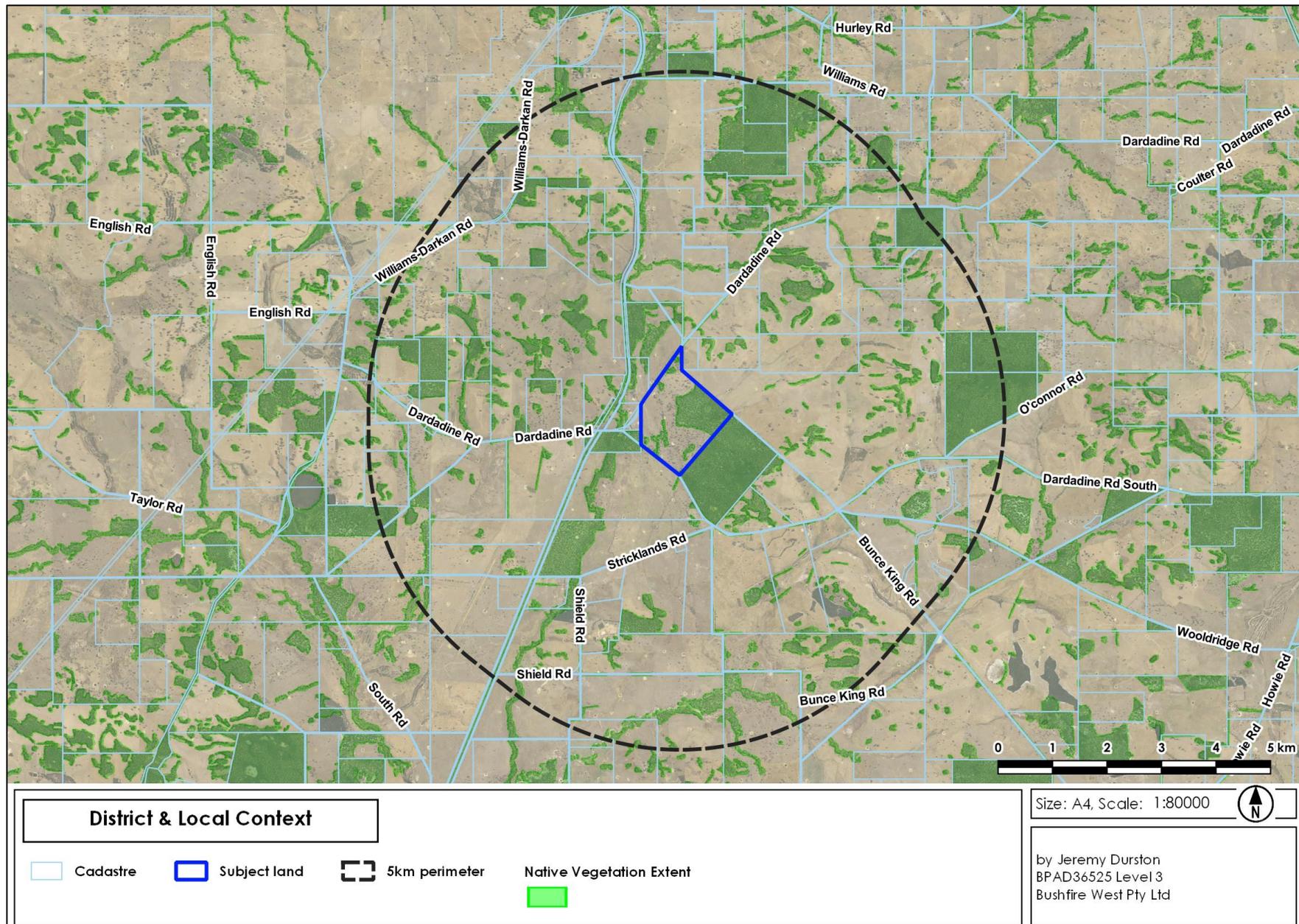


Figure 2D: Local & District Contexts

3.0 Bushfire Assessment Inputs

3.1 Effective Slope

Effective slope under each vegetation area was assessed in accordance with the methodology detailed in AS 3959-2018 *Construction of buildings in bushfire prone areas*, and cross referenced with Landgate elevation data. The assessment area was found to be undulating and generally rising toward the north. The effective slopes are included in Section 3.2 below.

3.2 Bushfire Fuels

The location and extent of classified vegetation structures, including any low-threat exclusions, within 150 metres of the development site are mapped in Figure 3A and illustrated in the following photos. All bushfire structures and fuel loads are assessed in their mature states and the vegetation classifications are summarised in Table 3A.

Area 1	
AS3959-2018 Classification	Class A Forest [A-04 Low Open Forest]
Effective Slope	Up to 4.5° downslope from north-eastern aspects
Bushfire Hazard Level	Extreme
Predominately Eucalypts with tree foliage cover potentially greater than 30%. Understoreys of low trees, shrubs and grass.	
<div style="display: flex; justify-content: space-between; font-size: 0.8em; margin-bottom: 5px;"> DIRECTION 38 deg(T) -33.22876° +116.85681° ACCURACY 5 m DATUM WGS84 </div>  <div style="display: flex; justify-content: space-between; font-size: 0.8em; margin-top: 5px;"> Dardadine2 22/11/20, 11:47:51 </div>	
Photo ID: 1a	

Area 1



Photo ID: 1b

Area 2

AS3959-2018 Classification	Class B Woodland [B-07 Low Woodland]
Effective Slope	Upslope
Bushfire Hazard Level	Extreme

Eucalypts with tree foliage cover less than 30%. Predominately grass pasture understorey.



Photo ID: 2a

Area 2



Photo ID: 2b

Area 3

AS3959-2018 Classification	Class G Grassland – [Low Open Woodland B-08]
Effective Slope	Upslope
Bushfire Hazard Level	Moderate

Upslope area to the east of the site comprising predominately grass pasture and isolated trees with foliage cover less than 10%.



Photo ID: 3a

Area 4				
AS3959-2018 Classification	Class G Grassland – [Low Open Woodland B-08]			
Effective Slope	Up to 4.5° downslope			
Bushfire Hazard Level	Moderate			
Area to the west of Dardadine Road comprising predominately grass pasture and isolated trees with foliage cover less than 10%.				
<table border="1" style="width: 100%; background-color: #333; color: white;"> <tr> <td style="padding: 2px;">DIRECTION 305 deg(T)</td> <td style="padding: 2px;">-33.22678° +116.85703°</td> <td style="padding: 2px;">ACCURACY 5 m DATUM WGS84</td> </tr> </table>  <p style="font-size: small; margin-top: 5px;">Dardadine10 22/11/20, 12:21:34</p>		DIRECTION 305 deg(T)	-33.22678° +116.85703°	ACCURACY 5 m DATUM WGS84
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Area 5				
AS3959-2018 Classification	Class G Grassland – [Low Open Woodland B-08]			
Effective Slope	Up to 4.5° downslope			
Bushfire Hazard Level	Moderate			
Area of predominately grass pasture and isolated trees with foliage cover less than 10%.				
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DIRECTION 114 deg(T)	-33.22932° +116.85814°	ACCURACY 5 m DATUM WGS84		
Photo ID: 5a				

Area 5



Photo ID: 5b



Photo ID: 5c



Photo ID: 5d

Area 5



Photo ID: 5e

Area 6

AS3959-2018 Classification	Class C Shrubland – [Low Shrubland C-12]
Effective Slope	Up to 4.5° downslope
Bushfire Hazard Level	Moderate

Lavender farm area, which may potentially represent a bushfire hazard.



Photo ID: 6a



Table 3A Classified vegetation types:

Vegetation Classes	Vegetation Classification	Effective Slope
1	Class A Forest (A-04)	downslope <5°
2	Class B Woodland (B-07)	upslope
3	Class G Grassland (B-08)	upslope
4	Class G Grassland (B-08)	downslope <5°
5	Class G Grassland (B-08)	downslope <5°
6	Class C Shrubland (C-12)	downslope <5°

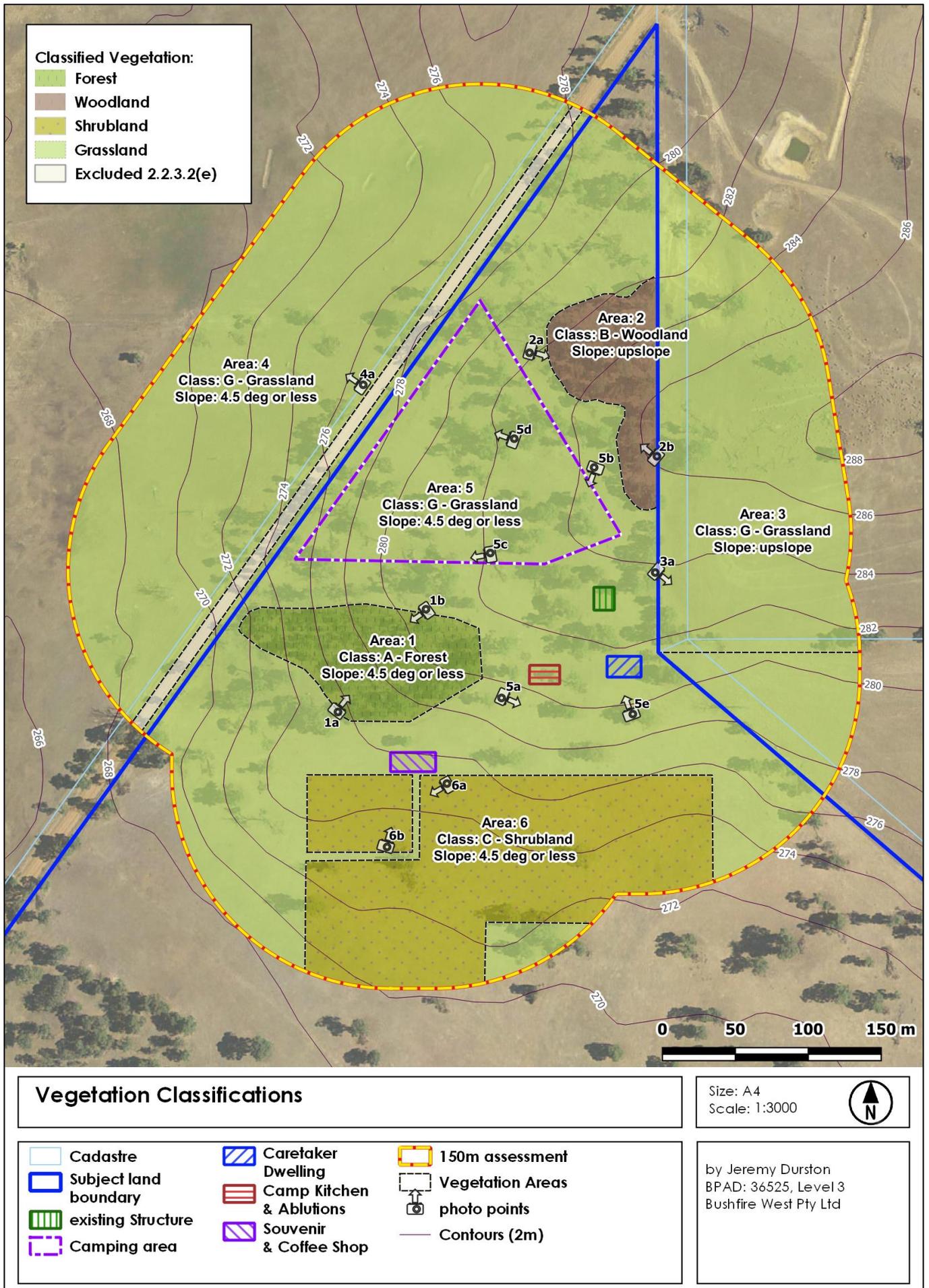


Figure 3A: Vegetation Classifications Map, pre-development

4.0 Bushfire Assessment Outputs

4.1 Bushfire Hazard Levels

Bushfire Hazard Level (BHL) analysis was undertaken in accordance with SPP3.7 Guidelines and using AS3959-2018 vegetation classifications to determine the Hazard Levels that apply across the assessment area. This analysis provides a measure of the likely intensity of a bushfire, and thus the potential bushfire threat.

The BHL assessment map is provided in Figure 4A. This map illustrates the Hazard Levels that are applicable across the assessment area, as detailed in the following table (Table 4A)

Table 4A: Bushfire Hazard Levels

Vegetation Area	Vegetation Classification	Effective Slope	Hazard Level
Area 1	Class A Forest (A-04)	downslope <5°	Extreme
Area 2	Class B Woodland (B-07)	upslope	Extreme
Area 3	Class G Grassland (B-08)	upslope	Moderate
Area 4	Class G Grassland (B-08)	downslope <5°	Moderate
Area 5	Class G Grassland (B-08)	downslope <5°	Moderate
Area 6	Class C Shrubland (C-12)	downslope <5°	Moderate

4.2 BAL Ratings & Setbacks

In accordance with AS3959 Method 1 analysis, the minimum BAL setbacks required to achieve ratings of BAL-29 or lower for the proposed development are as follows.

Table 4B: BAL setbacks (AS3959 Method 1):

Vegetation Area	Vegetation Classification	Effective Slope	Setback	BAL
1	Class A Forest (A-04)	downslope <5°	27m	BAL-29
		upslope	21m	BAL-29
2	Class B Woodland (B-07)	upslope	14m	BAL-29
3	Class G Grassland (B-08)	upslope	8m	BAL-29
4	Class G Grassland (B-08)	downslope <5°	9m	BAL-29
5	Class G Grassland (B-08)	downslope <5°	9m	BAL-29
6	Class C Shrubland (C-12)	downslope <5°	10m	BAL-29

The post-development vegetation classifications, with the required hazard separation provided by Asset Protection Zones, are depicted in Figure 4B.

In accordance with SPP 3.7 and using the above AS3959 Method 1 analysis, BAL Contour Mapping has been prepared to depict the potential radiant heat impacts and associated BAL ratings for the development with Asset Protection Zones (Figures 4C & 4D).

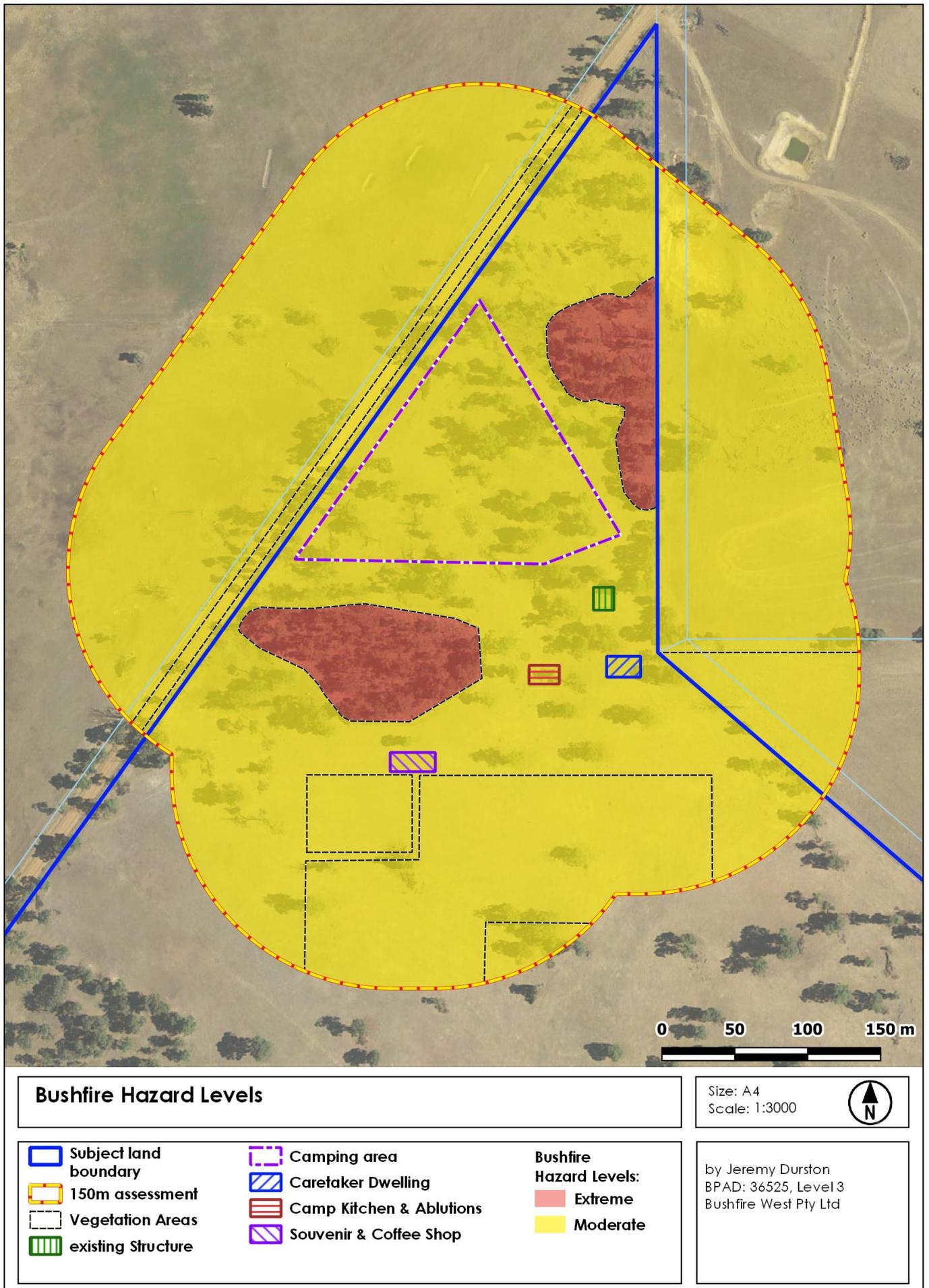


Figure 4A: BHL Assessment Map

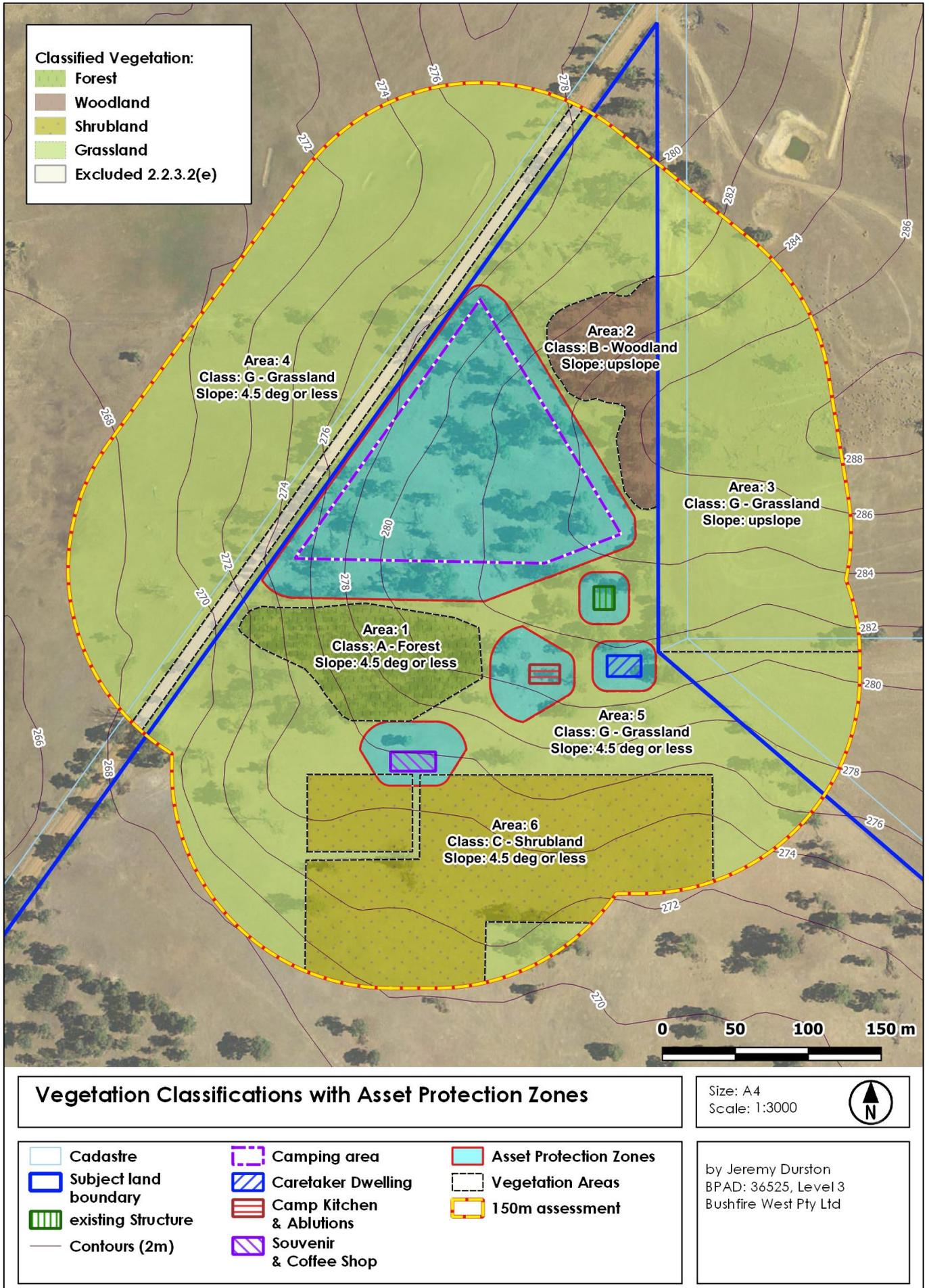


Figure 4B: Vegetation Classifications, post-development

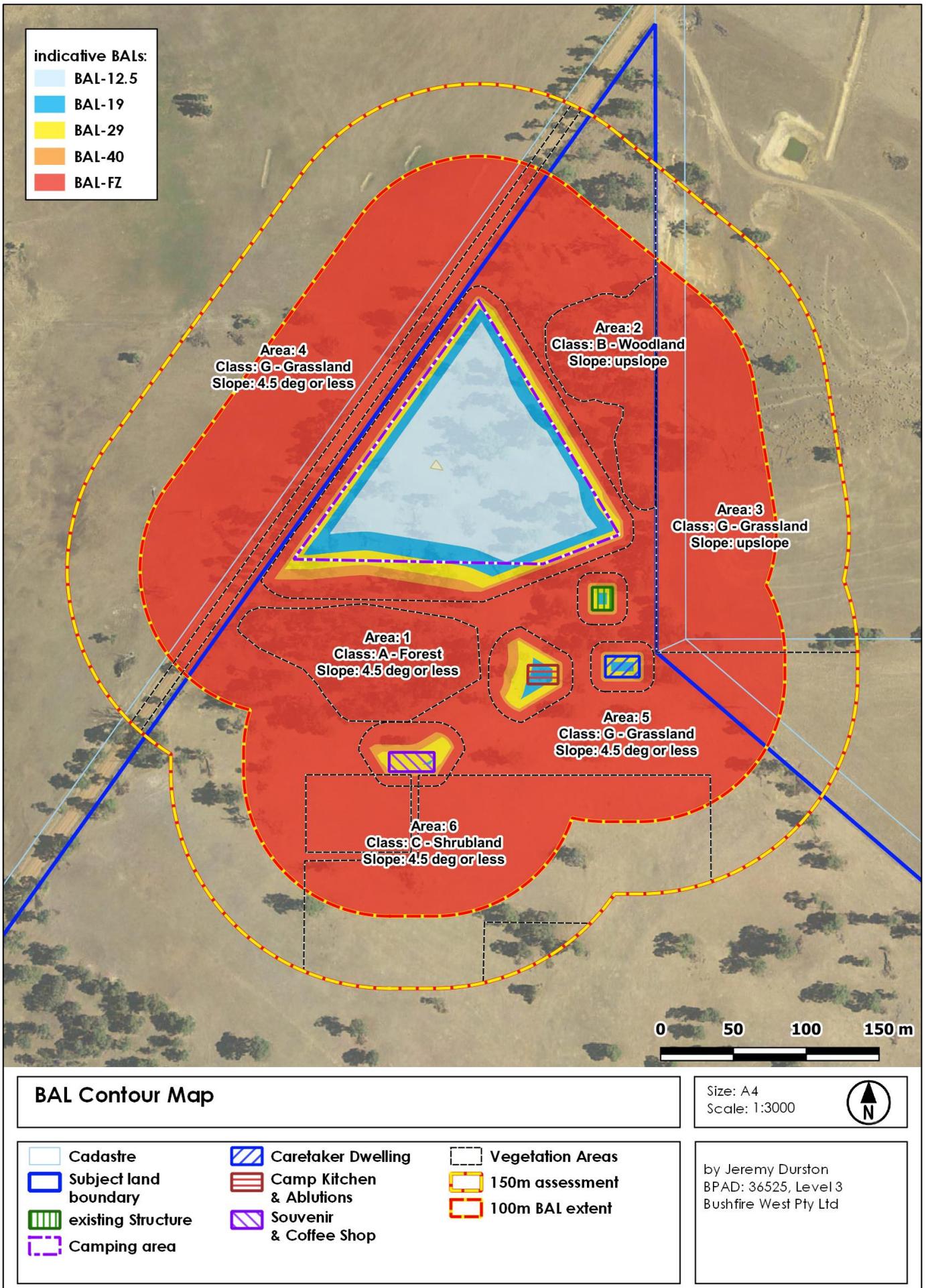


Figure 4C: BAL Contour Map

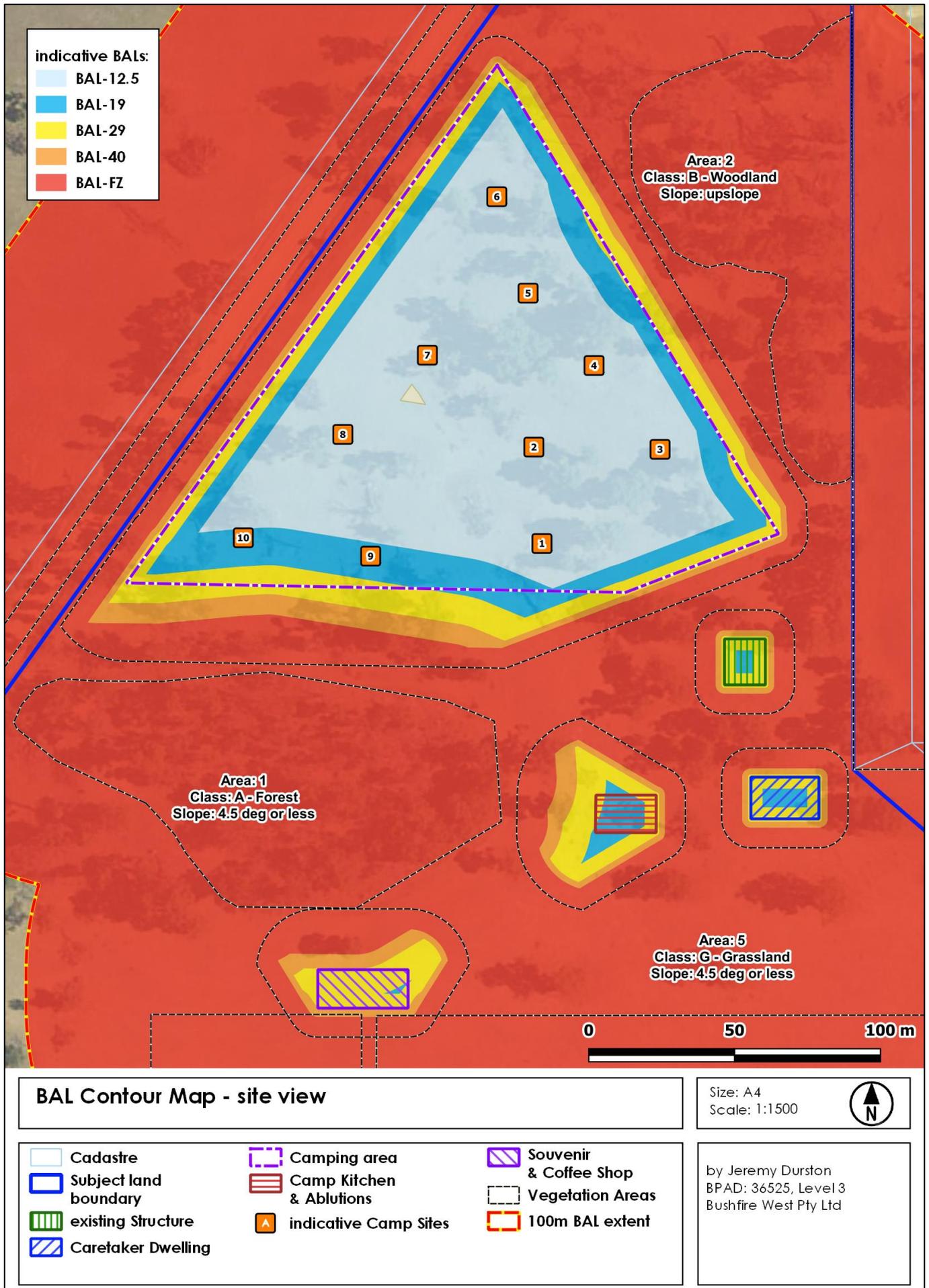


Figure 4D: BAL Contour Map, site view

5.0 Bushfire Risk Assessment

5.1 Bushfire Hazard Issues

The BHL assessment illustrates the identified bushfire hazards within 150m of the assessment area. The development is located within an agricultural setting assessed as Moderate hazard, with adjacent areas of Extreme hazard including Forest and Woodland. The vehicle access loop will traverse Moderate hazard areas rather than through Woodland or Forest.

The direct hazards to the site are considered characteristic of the surrounding rural area, which generally comprises agricultural land interspersed with remnant vegetation. The larger sections of native vegetation external to the site are assessed to be sufficiently removed to allow advance warning of an approaching bushfire.

5.2 Bushfire Weather & Climate

The Bureau of Meteorology weather station (ID 010614) is located at Narrogin approximately 45km to the north-east of the site. The Narrogin climate data is considered the most relevant for this analysis due to its proximity and its location within the same fire weather district (Upper Great Southern) as the development site.

The site experiences a warm dry season from November to March, generally associated with increased winds and lower humidity. Milder weather is experienced from April through to October and the higher rainfall months are generally May to September. The mean maximum temperatures range from 31° in January falling to 15° in July. On average, 18 days with temperatures above 35° have been experienced each year between the months of November and March. The mean average monthly rainfall ranges from 13mm in January to 86mm in July (Bureau of Meteorology, 2021).

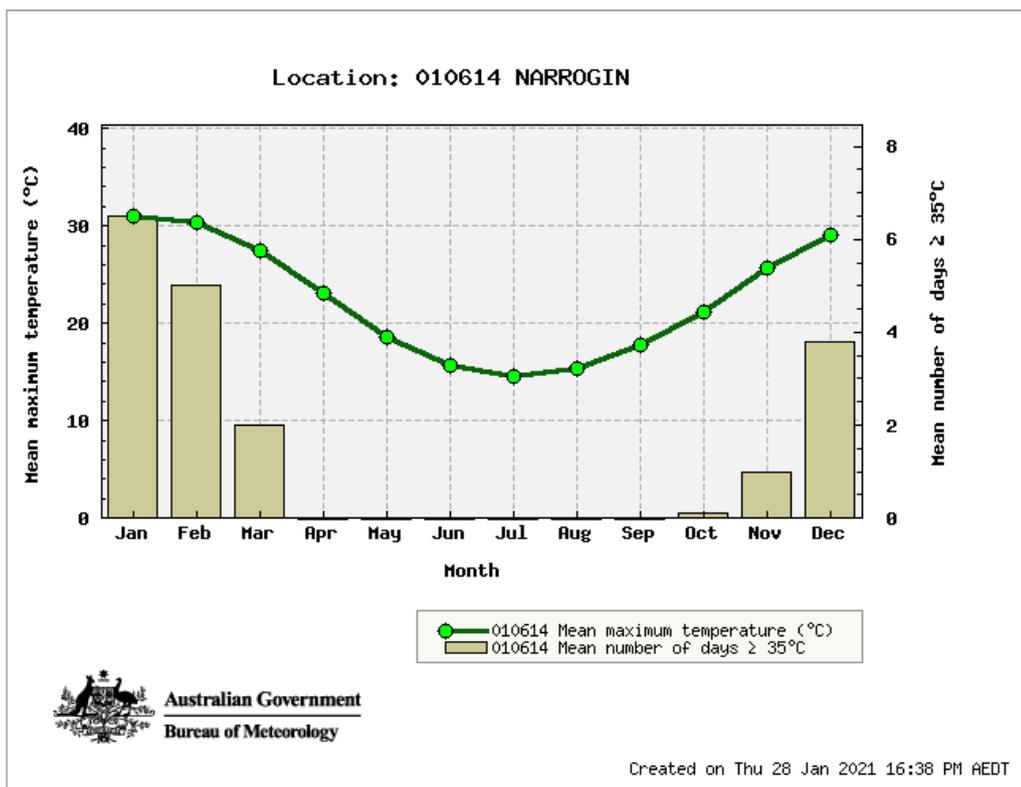


Figure 5A: Mean Maximum Temperatures & Days of at least 35° (source: Bureau of Meteorology)

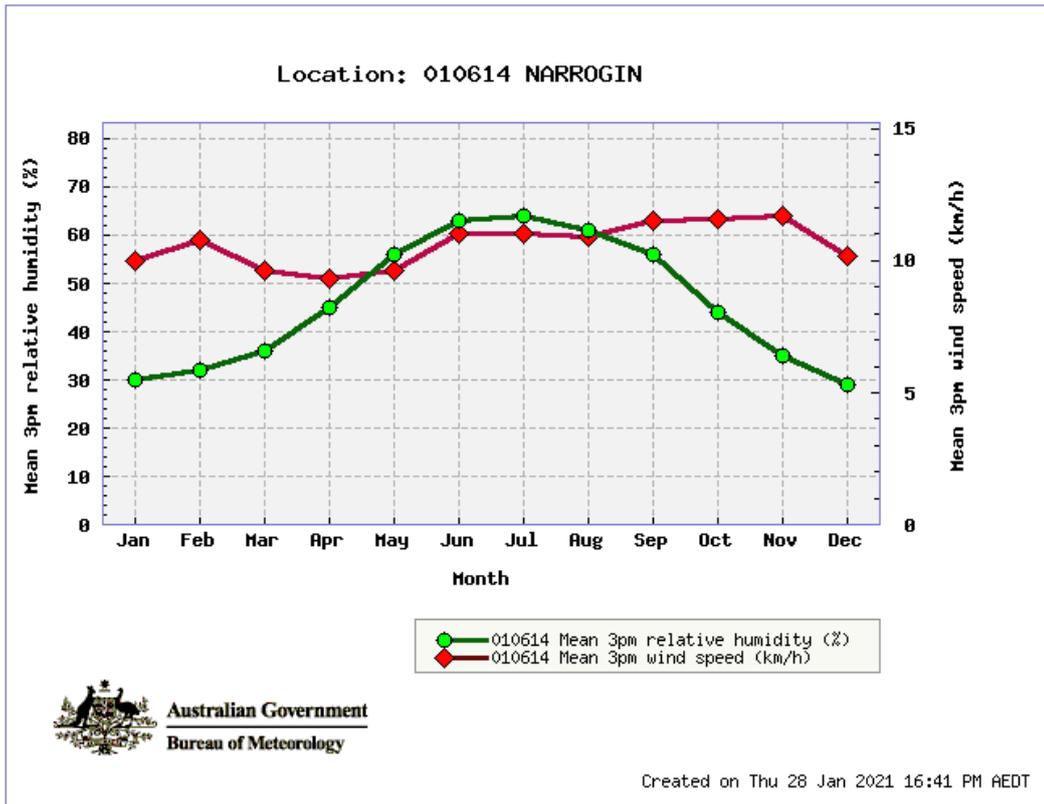


Figure 5B: Mean 3pm Wind Speeds & Relative Humidity (source: Bureau of Meteorology)

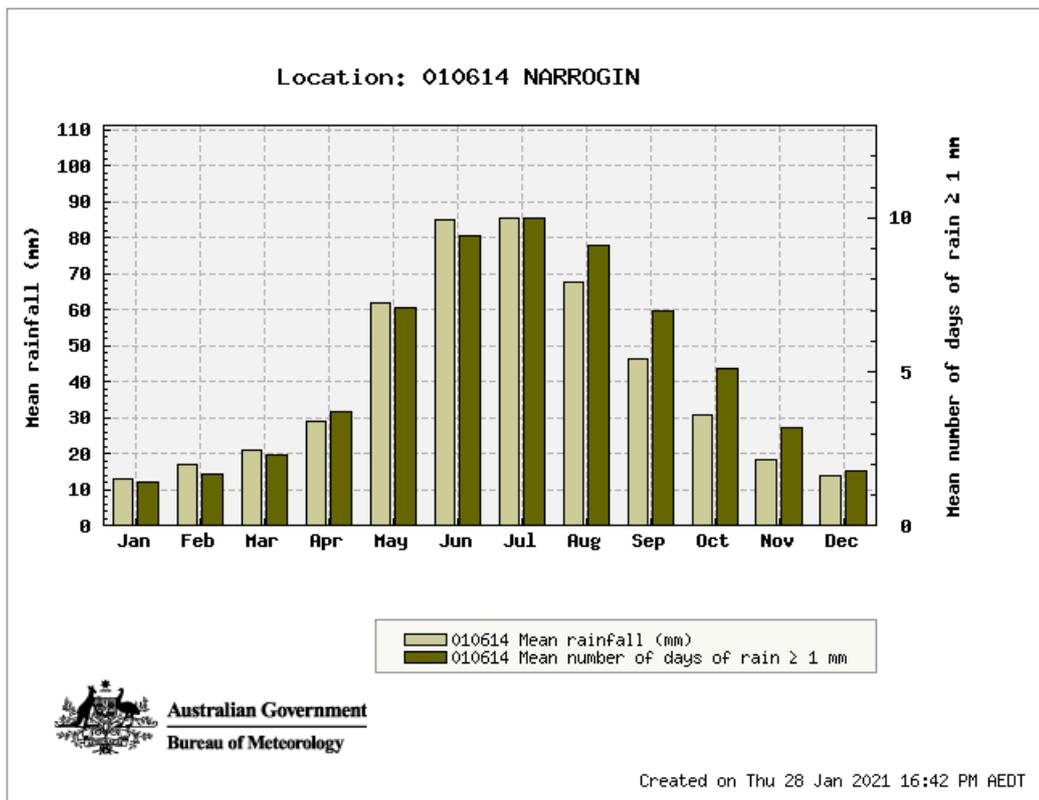


Figure 5C: Mean Rainfall & Days with Rainfall at least 1mm (source: Bureau of Meteorology)

5.3 Likelihood of Bushfire

Bushfires occur regularly within the Shire of West Arthur and surrounding areas; it is a feature of the hot, dry summers and the landscapes incorporating areas of native vegetation and extensive agricultural land. Fire behaviour can range from very mild to extremely dangerous, dependant on fuel loads, weather, topography, etc. The most severe fires occur generally from November through to March, however dangerous fires may occur outside of that period. There may be limited notification at the initial stages of a bushfire and the fire duration and impact may be unpredictable.

Bushfires can have a variety of ignition sources originating from either natural or human causes. While not exhaustive, the following causes are considered characteristic:

- Lighting strike;
- Powerlines sparking, or pole-top fire;
- Vehicle movement through dry vegetation;
- Sparks from mechanical operations or hot works;
- Electrical vault;
- Burning of refuse;
- Camp fire or cooking fire;
- Discarded match or cigarette;
- Hazard reduction burning; and
- Arson.

With respect to the above, the likelihood of a bushfire impacting the development site has been assessed using the following matrix:

Table 5A: Likelihood Matrix

Likelihood	Recurrence (Years)
Almost Certain	1
Likely	25
Possible	50
Unlikely	100
Very Unlikely	200

Due to the history of fire activity in the wider locality, the chance of a bushfire impacting the site is assessed as **Likely**, or expected to occur over a twenty five year time-frame.

5.4 Potential Consequences

The key, potential consequences of a bushfire impacting the site are:

1. loss of life or harm to visitors and staff/management/owners.
2. loss or damage to property, assets and infrastructure.

The proposal has been assessed as a 'vulnerable land use' under State Planning Policy 3.7 Planning in Bushfire Prone Areas due to the potential vulnerability of visitors to the site being unfamiliar with the location and unaware of the appropriate responses during a bushfire.

The rural locality of the development comprises generally agricultural land uses with low population density and infrastructure. The proposed house and souvenir & coffee shop are assets potentially at risk from bushfire. Camping activities will require no fixed onsite buildings or structures, as visitors will bring their own equipment such as tents, camper trailers and vans.

With respect to the people, property and infrastructure in the vicinity of the development, the bushfire vulnerability is assessed as **High**, primarily due to the potential vulnerability of visitors to the site.

The identified bushfire hazard levels for the development area are Moderate hazards adjacent to areas of Extreme hazard, and these hazards levels are characteristic of the broader landscape. The potential threat represented by this combination of hazards is assessed as **Medium**.

The consequence rating of the proposal is assessed according to the following matrix:

Table 5B: Consequence Rating Matrix

Vulnerability	Threat			
	Low	Medium	High	Extreme
High	Moderate	Major	Catastrophic	Catastrophic
Moderate	Minor	Moderate	Major	Catastrophic
Low	Minor	Minor	Moderate	Major

The potential consequence rating is thus assessed to be **Major Consequence**.

5.5 Initial Risk Assessment

The matrix for determining the risk rating of the site, prior to any risk treatments, is as follows:

Table 5C: Risk Rating Matrix

Likelihood	Consequence			
	Minor	Moderate	Major	Catastrophic
Almost certain	High	Very High	Extreme	Extreme
Likely	Medium	High	Very High	Extreme
Possible	Low	Medium	High	Very High
Unlikely	Low	Low	Medium	High

The initial risk rating is thus assessed to be **Very High Risk** prior to any risk treatments.

The evaluation of the initial bushfire risk is as follows:

Table 5D: Risk Tolerance Matrix

Risk Level	Risk Tolerance
Low	Tolerable
Medium	Generally tolerable
High	Potentially tolerable
Very High	Generally intolerable
Extreme	Intolerable

A combination of risk treatment measures is thus considered necessary to reduce the likelihood and/or consequence of a bushfire impacting the development, thereby reducing the risk level of the proposal to a more tolerable level.

The required risk treatment measures are detailed in the following section.

6.0 Risk Treatment Strategies

6.1 Risk Treatments

The schedule of recommended risk treatment strategies to address the assessed bushfire risk is as follows:

- a) Implementing Asset Protection Zones so that the development is exposed to acceptable BAL ratings of BAL-29 or lower.
- b) Adoption of a bushfire emergency & evacuation plan, with evacuation as the primary response.
- c) Management familiarisation and review of the adopted bushfire emergency management procedures.
- d) Onsite management available at all times to coordinate any required emergency response for visitors.
- e) Onsite firefighting appliance to be maintained for use by management.
- f) Communications by management with nature-based park visitors and emergency services using the available mobile phone network.
- g) Monitoring of DFES & Emergency channels for potential bushfire conditions.
- h) Preparation for pre-emptive evacuation of the site if a Fire Danger Index of 'Severe' or above is forecast.
- i) Adhering to any declared Fire Ban and/or Vehicle Movement Ban.
- j) Adhering to local burning restrictions and campfire restrictions.
- k) Boundary firebreaks to be maintained to the specifications of the Shire of West Arthur Fire Break Notice.
- l) Maintenance of the onsite vehicle access track with all-weather surface suitable for vehicles including camper trailers / vans, with adequate vehicle turn-around and passing areas.
- m) Water supply to be maintained with reserve 20,000L capacity for firefighting with adjacent turn-around / hardstand area.

The above schedule may be updated or amended over time when this plan is reviewed.

6.2 Risk Assessment – with Risk Treatment

The recommended treatment strategies, in combination, are expected to considerably reduce the chance of a bushfire impacting the proposed vulnerable land uses. While the site itself may experience bushfire, the chance of direct impact to the proposed vulnerable land uses is assessed to be reduced to an expected one in one hundred-year event.

The likelihood rating, with treatment strategies, is thus assessed to be **Unlikely**.

Table 6A: Likelihood Matrix

Likelihood	Recurrence (Years)
Almost Certain	1
Likely	25
Possible	50
Unlikely	100
Very Unlikely	200

The resulting risk rating of the proposal, incorporating risk treatments, is determined as follows:

Table 6B: Risk Rating Matrix – with Risk Treatment

Likelihood	Consequence			
	Minor	Moderate	Major	Catastrophic
Almost certain	High	Very High	Extreme	Extreme
Likely	Medium	High	Very High	Extreme
Possible	Low	Medium	High	Very High
Unlikely	Low	Low	Medium	High

While the potential consequences from a bushfire remain for the vulnerable land uses, the reduced likelihood of visitors to the site being impacted by bushfire results in an associated assessment of **Medium Risk** rather than potentially Very High.

The evaluation of the assessed bushfire risk, incorporating the recommended mitigation measures, is as follows:

Table 5D: Risk Tolerance Matrix

Risk Level	Risk Tolerance
Low	Tolerable
Medium	Generally tolerable
High	Potentially tolerable
Very High	Generally intolerable
Extreme	Intolerable

The recommended combination of risk treatment measures thus results in a residual risk level that is assessed to be tolerable.

6.3 Residual Risk

After risk treatment the residual risk to visitors from the local, natural environment remains *Medium* due to the ongoing possibility of being impacted by bushfire. However, the residual risk is considered acceptable and characteristic of tourism activities that are conducted within natural landscapes in bushfire prone areas.

With the appropriate management and treatment of risk, including the adoption of bushfire emergency and evacuation procedures, the residual risk is considered tolerable for the type and scale of the proposed land uses.

It should also be noted that, while the site may need to be evacuated in the event of bushfire, assets such as camper trailers, caravans, tents and equipment may remain at risk onsite. The potential loss of these assets during a bushfire event is also considered tolerable with respect to the type and scale of the proposal.

6.4 Monitor & Review

The assessed bushfire threat and the combination of risk treatments are to be monitored each bushfire season to:

- Ensure treatments are effective and efficient.
- Gather information to further improve risk management.
- Detect and assess any changes to risks or treatment priorities.
- Identify any emerging or previously unidentified risks.

This risk assessment is to be formally reviewed as follows:

- Every two years.
- After any bushfire event impacts the site.
- When the bushfire risk and/or treatment priorities have altered.

6.5 Bushfire Emergency & Evacuation Plan

Included with this report is a Bushfire Emergency & Evacuation Plan. The primary action in the event of a bushfire emergency is evacuation which is required to be carried out in accordance with any specific emergency service advice, as detailed within the Bushfire Emergency & Evacuation Plan.

7.0 Bushfire Protection Criteria

7.1 Guidelines for Planning in Bushfire Prone Areas Version 1.3 (the Guidelines)

The Guidelines apply to development applications located within designated bushfire prone areas. The Guidelines provide supporting information for implementation of SPP 3.7. Specifically, they provide the Bushfire Protection Criteria to be address for all applications.

For tourism proposals, the Bushfire Protection Criteria should also be assessed with regard to the Position Statement: Tourism Land Uses in Bushfire Prone Areas (2019). Additionally, the Position Statement Demonstrating Element 1: Location and Element 2: Siting and Design (2019) provides clarification and guidance for planning proposals where the subject land may have areas rated above BAL-29.

7.2 Proposal Assessment

Table 7A provides an assessment against the bushfire protection criteria detailed in Appendix 4 of the Guidelines in conjunction with the relevant Position Statements.

Table 7A: Assessment against the bushfire protection criteria of the Guidelines

Element	Acceptable Solution (A)	Compliance	Notes
1. Location	A1.1 Development location	Yes	Development is able to achieve the rating of BAL-29 with Asset Protection Zones. With regard to the <i>Position Statement Demonstrating Element 1: Location and Element 2: Siting and Design</i> , the hazards remaining within the site are characteristic of the surrounding rural area, which generally comprises agricultural land interspersed with remnant vegetation. The larger sections of native vegetation external to the site are sufficiently removed to allow advance warning of an approaching bushfire.
2. Siting of Development	A2.1 Asset Protection Zone (APZ)	Yes	APZs are required for the nature-based park area, camp kitchen & ablutions, souvenir & coffee shop, house and existing farm structure. APZs will be wholly contained within the subject land to achieve ratings no higher than BAL-29 and are to be installed and maintained to the specifications detailed in Appendix 1. With regard to the <i>Position Statement: Tourism land uses in bushfire prone areas</i> , while no bushfire construction standards apply to tents, camper trailers, vans, etc, an Asset Protection Zone is considered readily achievable for the nature-based park area.
	A3.1 Two access routes	Yes	Dardadine Road provides two access and egress alternatives.

Element	Acceptable Solution (A)	Compliance	Notes
3. Vehicular Access	A3.2 Public road	Yes	Dardadine Road meets the technical requirements of Element 3 Table 6.
	A3.3 Cul-de-sac	n/a	
	A3.4 Battle-axe	n/a	
	A3.5 Private driveways longer than 50m	Yes	<p>The internal access tracks are to be maintained as follows:</p> <ul style="list-style-type: none"> o All-weather surface (e.g. compacted gravel) o Minimum trafficable surface 4m o Horizontal clearance 6m o Vertical clearance 4.5m o Minimum weight capacity 15t o Maximum grade 1 in 10 o Maximum cross-fall 1 in 33 o Curves minimum inner radius (m) 8.5 o Minimum 17.5m turn-around areas located at distances no greater than 200m, with turning areas to be installed within 50m of the house and also adjacent to the nominated firefighting water tank. o Minimum 20m long, 6m wide passing bays to be located every 200m.
	A3.6 Emergency access way (EAW)	n/a	
	A3.7 Fire service access routes (FSAR)	n/a	
	A3.8 Firebreak widths	Yes	Boundary firebreaks are required to the specifications of the Shire of West Arthur Fire Break Notice.
4. Water	A4.1 Reticulated areas	n/a	
	A4.2 Non-reticulated areas	n/a	
	A4.3 Individual lots within non-reticulated areas	Yes	<p>A static firefighting water supply is to be installed and maintained, fitted with a 50mm male camlock coupling and full flow valve positioned at the base of the tank. An adjacent 17.5m diameter turnaround area and hardstand suitable for a type 3.4 appliance are required.</p> <p>With regard to the Position Statement: Tourism land uses in bushfire prone areas, the specified water volume is 20,000 L separate to any onsite potable water.</p>

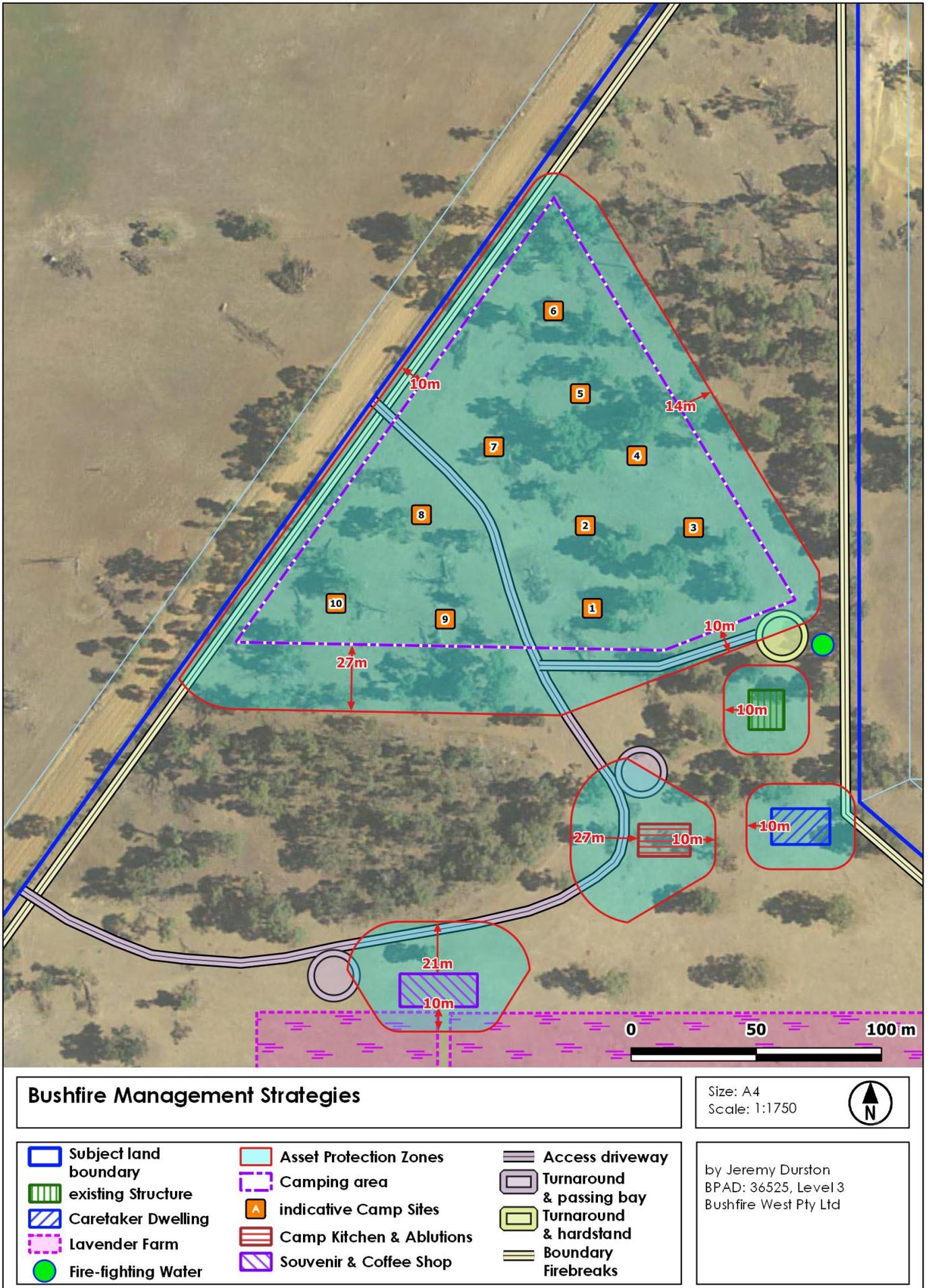


Figure 7A: Bushfire Management Strategies Map

8.0 Summary of Management & Implementation Obligations

The landowners and/or operators of the nature-based park and souvenir & coffee shop are required to implement the following bushfire risk treatment strategies. These measures are to be implemented prior to commencement of the proposed land uses and are to be maintained thereafter.

Property Management / Maintenance	
1	Implement and maintain Asset Protection Zones for the nature-based park area, camp kitchen & ablutions, souvenir & coffee shop, house and existing farm structure in accordance with Schedule 1 of the guidelines so that development is exposed to acceptable BAL ratings of BAL-29 or lower.
2	Maintain the onsite vehicle access tracks with all-weather surface suitable for vehicles including camper trailers / vans, with adequate vehicle turn-around and passing areas.
3	Install and maintain static water storage with 20,000L capacity for fire-fighting with specified fittings and adjacent turn-around / hardstand area.
4	Boundary firebreaks to be maintained to the specifications of the Shire of West Arthur Fire Break Notice.

Ignition Prevention / Suppression	
5	Adhere to any declared Fire Ban and/or Vehicle Movement Ban.
6	Adhere to local burning restrictions and campfire restrictions.
7	Onsite firefighting appliance to be maintained for use by management.

Visitor Management / Supervision	
8	Adopt and periodically review the bushfire emergency & evacuation plan. Management to be familiarised with the bushfire emergency procedures.
9	Onsite management to be available at all times while visitors are present to coordinate any required emergency response.
10	Communications by management with nature-based park visitors and emergency services using the available mobile phone network.
11	Monitoring of DFES & Emergency channels for potential bushfire conditions.
12	Preparation for the pre-emptive evacuation of the site if a Fire Danger Index of 'Severe' or above is forecast.

9.0 General References

- Dept. Fire & Emergency Services. (2015). *Bushfire Risk Management Planning - Guidelines for Preparing a Bushfire Risk Management Plan*.
- Dept. of Local Government and Communities. (2014). *Nature Based Parks Licensing guidelines for developers and local governments*.
- Dept. of Planning Lands and Heritage. (2019). Position Statement: Tourism land uses in bushfire prone areas.
- Dept. of Planning Lands and Heritage. (2017a). *Guidelines for Planning in Bushfire Prone Areas Version 1.3*.
- Dept. of Planning Lands and Heritage. (2017b). *Guidelines for Planning in Bushfire Prone Areas Appendices Version 1.3*.
- Dept. of Planning Lands and Heritage. (2016). Planning Bulletin 111/2016 Planning in Bushfire Prone Areas.
- Dept. of Planning Lands and Heritage. (2015). State Planning Policy 3.7 Planning in Bushfire Prone Areas.
- OBRM. (2019). Map of Bush Fire Prone Areas 2019. Office of Bushfire Risk Management.
- Shire of West Arthur. (2020). Fire Break Notice.
- Standards Australia. (2018). AS 3959-2018 Construction of buildings in bushfire prone areas. SAI Global.
- Standards Australia (2009). AS/NZS ISO 31000:2009 Risk Management - Principles and guidelines. SAI Global.

Appendix 1

Asset Protection Zone Standards

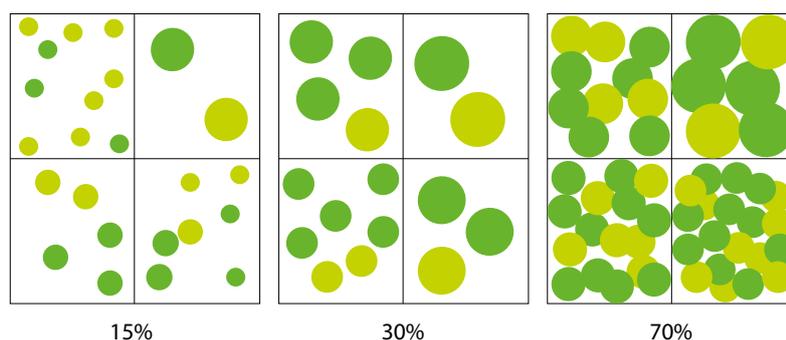
Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
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ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

SCHEDULE 1: STANDARDS FOR ASSET PROTECTION ZONES

- **Fences:** within the APZ are constructed from non-combustible materials (e.g. iron, brick, limestone, metal post and wire). It is recommended that solid or slatted non-combustible perimeter fences are used.
- **Objects:** within 10 metres of a building, combustible objects must not be located close to the vulnerable parts of the building i.e. windows and doors.
- **Fine Fuel load:** combustible dead vegetation matter less than 6 millimetres in thickness reduced to and maintained at an average of two tonnes per hectare.
- **Trees (> 5 metres in height):** trunks at maturity should be a minimum distance of 6 metres from all elevations of the building, branches at maturity should not touch or overhang the building, lower branches should be removed to a height of 2 metres above the ground and or surface vegetation, canopy cover should be less than 15% with tree canopies at maturity well spread to at least 5 metres apart as to not form a continuous canopy.

Figure 18: Tree canopy cover – ranging from 15 to 70 per cent at maturity



- **Shrubs (0.5 metres to 5 metres in height):** should not be located under trees or within 3 metres of buildings, should not be planted in clumps greater than 5m² in area, clumps of shrubs should be separated from each other and any exposed window or door by at least 10 metres. Shrubs greater than 5 metres in height are to be treated as trees.
- **Ground covers (<0.5 metres in height):** can be planted under trees but must be properly maintained to remove dead plant material and any parts within 2 metres of a structure, but 3 metres from windows or doors if greater than 100 millimetres in height. Ground covers greater than 0.5 metres in height are to be treated as shrubs.
- **Grass:** should be managed to maintain a height of 100 millimetres or less.

Appendix 2

Shire of West Arthur Fire Break Notice

FIRE CONTROL OFFICERS

POSITION	OFFICER	BUSH FIRE RADIO CALL SIGN VHF	UHF	TELEPHONE
Chief Fire Control Officer	DUNCAN SOUTH	WEST ARTHUR BASE WEST ARTHUR 1	12	9736 1147 0427 361 147
Deputy Chief Fire Control Officer	BEN ROBINSON	WEST ARTHUR 3		9862 6113 0438 626 033
Fire Weather Officer	ADRIAN SOUTH	CORDERING 1 (+BASE)		0428 935 000
Deputy Fire Weather Officer	ROBERT JEFFERIES	DURANILLIN 1 (+BASE)	30	9862 9056 0427 629 003

BRIGADE NAME	FIRE CONTROL OFFICER	BUSH FIRE RADIO CALL SIGN VHF	UHF	TELEPHONE
Arthur River	BEN ROBINSON	WEST ARTHUR 3		9862 6113 0438 626 033
	ANDREW PUTLAND	BOKAL 2		9862 9030 0428 629 030
	BRAD WOOLDRIDGE	ARTHUR RIVER 4		0427 626 059
	NEIL MORRELL	KYLIE 1 (+BASE)		0429 629 066
	ALAN MANUEL	ARTHUR RIVER 1		0427 626 002
	PAUL SAUNDERS	ARTHUR RIVER 3		0429 998 344
A/River Truck		ARTHUR RIVER FIRE TRUCK		
Darkan	DUNCAN SOUTH	WEST ARTHUR 1		9736 1147 0427 361 147
	PETER LUBCKE	BOOLADING 1	28	9736 1169
	PETER LUTZ	DARKAN 3	11	9736 1534 0427 197 435
	TREVOR BUNCE	HILLMAN 1	39	9736 1140
	JAMES CAMPBELL	DARKAN 2		0427 864 277
Darkan Truck		DARKAN FIRE TRUCK		
Duranillin	ADRIAN SOUTH	CORDERING 1 (+BASE)		0428 935 000
	MATTHEW TELFER	CAPERCUP 1		0477 888 070
	KIM HALES	SANDALWOOD 1	13	9767 2043 0427 802 793
	JAMIE PARK	LIGHTWOODS 2	38	9863 1092 0429 631 092
	ROBERT JEFFERIES	DURANILLIN 1 (+BASE)	30	9862 9056 0427 629 003
Duranillin Truck		DURA FIRE TRUCK		
Shire Office		SHIRE OFFICE		9736 2222

FIRE WEATHER COMMITTEE: Robert Jefferies, James Campbell, Adrian South, Duncan South, John Pascoe
 UHF CHANNEL 5 to be used for communication during fire control for those who do not have access to VHF
West Australian Emergency Radio Network (WAERN) High Band- Channel 171

Department of Biodiversity, Conservation and Attractions- Parks and Wildlife Service:
 Collie: 9735 1988, Narrogin: 9881 9200, Katanning: 98211296

SHIRE OF WEST ARTHUR



BUSH FIRE NOTICE

2020/2021

**IN THE EVENT OF AN UNCONTROLLED
FIRE CALL 000**

**CONTACT SHIRE OFFICE TO REGISTER FOR
NOTIFICATION OF MOVEMENT BANS BY SMS**

RESTRICTED BURNING TIMES

PERMIT REQUIRED

30/09/2020 to 31/10/2020

PROHIBITED BURNING TIMES

01/11/2020 to 21/02/2021

RESTRICTED BURNING TIMES

PERMIT REQUIRED

22/02/2021-15/04/2021

**CAMPING AND COOKING FIRES ARE NOT
PERMITTED DURING THE PROHIBITED
BURNING TIME.**

31 Burrowes Street, DARKAN WA 6392
 PH: (08) 9736 2222 Fax: (08) 97362212
 Email: shire@westarthur.wa.gov.au
www.westarthur.wa.gov.au

BUSHFIRES ACT 1954

Shire of West Arthur Fire Break Notice

Notice to all owners or occupiers of land in the Shire of West Arthur.

Pursuant to powers contained in Section 33 of the Bush Fires Act 1954, you are required to carry out fire prevention work on land owned or occupied by you in accordance with the provisions of this Notice.

The work must be carried out by 30 September 2019, or within 14 days of becoming the owner or occupier, and be kept and maintained until 15 April 2020.

The penalty for non-compliance with this notice is a maximum fine of \$5,000 and, notwithstanding prosecution, the Shire may enter upon the land and carry out required works at the owners/occupiers expense.

The Shire regularly conducts property inspections to ensure compliance. Persons who fail to commence the requirements of this Notice will be issued with infringements in accordance with the Bushfires Act or Orders to rectify. Inspections commence in November of each year.

If for any reason it is considered impracticable to comply with the requirements of this order, you may make written application to the Shire Chief Executive Officer no later than 14 November for permission to provide firebreaks in alternative position or to take alternative action to abate fire hazards on your land. The application must be countersigned by the Fire Control Officer for your local area. No applications, whether verbal or written, will be considered after this date.

TOWNSITES

All town lots where the area of the land is less than 2023 square metres (½ acre), is used for the storage of flammable liquids, or zoned for a hotel are required to be cleared of all debris and flammable materials.

All town lots where the area of the land is greater than 2023 square metres (½ acre) shall have the flammable material maintained to a height of no more than 100mm and where undeveloped land abuts developed land a firebreak not less than 2.5 metres wide is required.

RURAL PROPERTIES

A firebreak or a combination of firebreaks or closely grazed land is required to completely surround any rural homestead, buildings, haystacks, stacks of fodder, bulk fuel, drums and liquid petroleum. This may be

- a firebreak not less than 10 metres wide constructed immediately surrounding; if provided by cultivation, spraying or burning; or
- a firebreak at least 30 metres wide completely surrounding if provided by closely grazed land; with the outer 2.5 metres cultivated or completely free of flammable material as required under the definition of firebreak.

Where land abuts the Darkan and Duranillin townsites a firebreak is required.

Firebreaks constructed on road verges do not constitute legal firebreaks under the Bush Fires Act.

Property owners/occupiers of land over 40 hectares must have a fully operational mobile fire unit with a minimum capacity of 400litres. Slip on units are to be bolted or chained securely to the tray of the vehicle.

Properties are to comply with the provisions of any approved bushfire management plan.

DEFINITIONS

FIREBREAK: A minimum of 2.5 metres wide, to bare mineral earth, with a vertical clearance of 4 metres.

HAYSTACKS: Means a collection of hay including fodder rolls or large bales placed or stacked together within 200 metres of any homesteads, buildings or fuel installations.

PLANTATIONS: A plantation is defined as an area exceeding 3ha within a town site, or an area exceeding 20ha within a rural area, of trees planted for commercial purposes.

HARVESTING OPERATIONS

A harvesting, swathing, baling or forestry machine may not be operated in any crop or timber cell during the PBT or RBT unless it is equipped with a fire extinguisher (minimum 7.5 litres). A fully operational mobile firefighting unit with a tank of 400 litre minimum capacity is to be located in or adjacent to any paddock/cell where harvesting, swathing, baling or slashing of stubble is being undertaken.

The operation of harvesting machines and the movement of grain equipment in paddocks on Christmas Day, Boxing Day and New Years Day is prohibited.

From time to time weather conditions may result in the issue of a Harvest Ban which could include the ban of movement of vehicles in paddocks. Bans will generally be advertised on local radio. It is the responsibility of persons harvesting to be aware if bans are in place. Ignorance to the existence of a ban will not avoid prosecution.

PLANTATIONS

The *Guidelines for Plantation Fire Protection* provide the minimum standards and a consistent approach to fire management. In addition, the Shire requests that no heaps be lit after 31 August and that the Shire is notified prior to any plantation burning.

STUMP GRINDING

A fully operational mobile firefighting unit with a tank of 400 litres minimum capacity to be located in the same cell of the plantation at all times during stump grinding. Any ignition from stump grinding is to be reported to an FCO. Person to remain on site for at least 1 hour after finishing stump grinding in the RBT and PBT.

RESTRICTED AND PROHIBITED BURING TIMES

Prohibited Burning Time (PBT): The 'prohibited burning' time that applies within the Shire is 1st November 2019 to 21st February 2020 (inclusive)

Restricted Burning Times (RBT): The 'restricted burning' times are 30th September 2019 to 31st October 2019 (inclusive) and 22nd February 2020 to 15th April 2020 (inclusive).

These dates may be subject to variation according to seasonal conditions. Any changes will be advertised.

PROHIBITED BURNING TIMES – PERMITS

Only a limited amount of burning during this period may be carried out under special permit conditions. Please refer to your Fire Control Officer or the Shire Office.

RESTRICTED BURNING TIMES - PERMITS

No person shall set fire to timber or pasture during this period, unless they comply with the following conditions:

1. Obtain the necessary permit from either a Fire Control Officer or CEO of the Local Authority and complies with all conditions.
2. Notified their intention to burn the bush to: - all neighbours, West Arthur Base or Shire Office, a Forest Officer (if the fire will be within 10km of State Forest) and all "Notifiable authorities". The period of notice required under this section shall be not more than 28 days, or less than 4 days, except where the notice is given verbally, in which case the minimum period of the notice may be determined by mutual agreement.
3. No fire shall be lit on a day a "catastrophic", "extreme", "severe" or "very high" fire danger forecast has been issued for the district.
4. Fire to be lit after 12pm (midday).

Burning without a permit will lead to prosecution, fines up to \$10,000 applicable.

NO LIGHTING OF FIRES ON SUNDAYS OR PUBLIC HOLIDAYS

No fires are to be lit on Easter Friday, Easter Saturday, Easter Sunday, Easter Monday, Public Holidays or Sundays.

STUBBLE Paddock BURNING

A firebreak is to surround the paddock prior to burning stubble.

BURNING OF GARDEN REFUSE AND RUBBISH:

Permits are required during RBT and PBT.

Garden refuse and rubbish may be burnt as follows:

1. Any time day or night in a properly constructed incinerator designed to prevent the escape of sparks or burning material provided it is situated not less than 2 metres from any building or fence and an area of 2 metres surrounding the incinerator is clear of all flammable material.
2. On the ground between the hours of 6.00pm and 11.00pm of the same day, and completely extinguished not later than midnight on that day. An area of 5 metres must be cleared all around the site during the whole time the fire is burning. The user must extinguish the fire by the application of water or earth.
3. The fire shall not be lit on a day on which a "catastrophic", "extreme", "severe", or "very high" fire danger forecast has been issued for the district.

Appendix 3

Bushfire Emergency & Evacuation Plan



BushfireWest

Bushfire Emergency Evacuation Plan

One Gate Farm

Lot 9980 Dardadine Road, Dardadine



**BRONZE
MEMBER**

Fire Protection
Association Australia

Ref: E201121

Version: 1.1

Feb 2021

BUSHFIRE EMERGENCY EVACUATION PLAN

Report Details

Premises	One Gate Farm
Site Address	Lot 9980 Dardadine Road, Dardadine
Prepared by	Jeremy Durston, BPAD39525 Level 3, Bushfire West Pty Ltd
Owner/operator	Dean & Kelly Bruins
Plan Reference	E 201121

Document Control

Version	Date	Details	By
1.0	30 Jan 2021	Bushfire Emergency Evacuation Plan – Nature-based park; souvenir & coffee shop	JPD
1.1	11 Feb 2021	Updated offsite evac details and minor edits.	JPD

Emergency Management Team

Name	Organisation	Contact Details
Dean Bruins	One Gate Farm	0407 771 599 dean@onegatefarm.com.au
Kelly Bruins	One Gate Farm	0439 991 569
Jeremy Durston	Bushfire West Pty Ltd	jeremy@bushfirewest.com.au, 0403 328 835

TO BE REVIEWED ANNUALLY

Bushfire Emergency Evacuation Plan

DISCLAIMER AND LIMITATION

This report is prepared solely for Dean & Kelly Bruins (the 'proponent') and is not for the benefit of any other person and may not be relied upon by any other person.

To the maximum extent permitted by the law, Jeremy Durston (the 'author') and Bushfire West Pty Ltd exclude all liability whatsoever for:

1. claim, damage, loss or injury to any property and any person caused by fire or as a result of fire or indeed howsoever caused;
2. errors or omissions in this report except where grossly negligent; and

the proponent expressly acknowledges that they have been made aware of this exclusion and that such exclusion of liability is reasonable in all the circumstances.

If despite the provisions of the above disclaimer the author and/or Bushfire West Pty Ltd are found liable then any liability is limited to the lesser of the maximum extent permitted by the law and the proceeds paid out by Bushfire West Pty Ltd's professional or public liability insurance following the making of a successful claim against such insurer.

The author and Bushfire West Pty Ltd accept no liability or responsibility whatsoever for or in respect of any use or reliance upon this report and its supporting material by any third party.

Jeremy Durston
Bushfire West Pty Ltd
BPAD 36525, Level 3
Exp. April 2021

Bushfire Emergency Evacuation Plan

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4.0	Preparedness	7
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Bushfire Emergency Evacuation Plan

1.0 Site Details

This plan is for: **One Gate Farm**

and has been designed to assist management and visitors to protect life and property in the event of a bushfire.

This Plan outlines procedures for both **EVACUATION** and **SHELTER-IN-PLACE** (remain on-site) to enhance the protection of occupants from the threat of a bushfire.

The Primary Action to follow under normal bushfire conditions is to:

EVACUATE or **SHELTER-IN-PLACE**

Street No & Name:

Lot 9980 Dardadine Road

Suburb:

Dardadine

Postcode: 6392

Name of on-site
Contact Person:

Dean Bruins & Kelly Bruins

Position / Role:

Owner/managers

Phone Number #1:

0407 771 599

Phone Number #2:

0439 991 569

Type of Facility:

Nature-based park (camping); souvenir & coffee shop

Number buildings:

1

No. of employees
/managers:

2
(day & night)

No. of visitors:

Up to 10 camp
sites with variable
overnight visitors;
& variable day
visitors.

Number of occupants with support needs:

Potentially all onsite visitors.

Description of support needs:

Visitors requiring assistance and
direction during a bushfire.

Bushfire Emergency Evacuation Plan

2.0 Responsibilities

The following outlines the responsibilities for implementing the emergency procedures in the event of a bushfire.

Name of Person	Area of responsibility	Responsibility	Mobile Phone Number
Dean Bruins	Fire Warden, co-manager and primary contact	<ul style="list-style-type: none">• Implement all facets of the Bushfire Emergency Evacuation Plan• Delegate as required• Respond and take control as appropriate• Determine the nature of the emergency and implement appropriate action• Co-ordinate and implement emergency procedures	0407 771 599
Kelly Bruins	Deputy Fire Warden & co-manager	<ul style="list-style-type: none">• Assist Fire Warden, or take control in the absence of the Fire Warden• Implement emergency procedures	0439 991 569

3.0 Emergency Contacts

Name of Organisation	Office/Contact	Contact Details
Fire, Police, Ambulance	Fire or Emergency	000
Department of Fire & Emergency Services	Emergency information	13 DFES (13 33 37)
EmergencyWA	Warnings and incidents	www.emergency.wa.gov.au
WA Police	Non-emergency police assistance	131 444
Main Roads	Road Information & closures	138 138 www.mainroads.wa.gov.au
Shire of West Arthur	Local Govt Emergency Management	08 9736 2222
Darkan Fire Brigade	Chief Fire Control Officer	'West Arthur 1' UHF 12 0427 361 147 08 9736 1147

Bushfire Emergency Evacuation Plan

4.0 Preparedness

Ongoing, Just Prior and During the Bushfire Season

Bushfire Season: The length of the fire season in the Shire of West Arthur is generally from November to April each year.

Actions		Responsible Person
Ongoing		
1	Implement and maintain the requirements of the adopted bushfire management plan, including Asset Protection Zones, onsite firefighting water supply and maintenance of access tracks.	Fire Warden or nominated delegate
2	Maintain over-night visitor registers with visitor contact details	
To be completed just prior to the bushfire season		
1	Review the Bushfire Emergency Evacuation Plan and ensure it is current	Fire Warden or nominated delegate
2	Ensure all management are aware of their roles and responsibilities	
3	Ensure emergency contact details are current	
4	Ensure a bushfire emergency kit is complete with bushfire procedures, first aid supplies and emergency contact details	
5	Ensure the off-site evacuation venues and contact details are current	
6	Reduce grass levels near the camping & shop areas and access track	
7	Service mobile fire unit to ensure good operational condition	
To be completed during the bushfire season		
1	Ensure all visitors are made aware of the bushfire threat and have adequate private transport	Fire Warden or nominated delegate
2	Remove flammable materials from the camping & shop areas and access track	
3	Comply with the requirements of the local government Fire Break Local Law, in addition to the measures specified in the adopted Bushfire Management Plan	
4	Ensure mobile fire unit is operational with fuel & full water capacity	

Bushfire Emergency Evacuation Plan

5.0 Awareness and Pre-Emptive Procedures

The following table outlines actions to be undertaken to ensure the site maintains situational awareness of a possible bushfire approaching and pre-emptive procedures.

Actions		Responsible Person
Very High, Severe, Extreme or Catastrophic Fire Danger rating, or an official Bushfire 'Advice' has been issued		
1	Inform visitors and of potential bushfire conditions	Fire Warden or nominated delegate
2	Check for any bushfire alerts on the EmergencyWA website, DFES phone (133 337) and/ or local ABC Radio	
3	Consider pre-emptive closure of the site if a Fire Danger Rating of Severe, Extreme or Catastrophic is forecast, or a Total Fire Ban declared	
4	Maintain awareness for potential bushfire in the vicinity	
5	Ensure mobile phones are available and charged	
6	Remove flammable materials from the camping & shop areas and access track	
7	Ensure the bushfire emergency kit is accessible along with first aid supplies	
A Bushfire threatens the site, or an official 'Watch and Act' or 'Emergency Warning' alert has been issued		
1	Alert all visitors	Fire Warden or nominated delegate
2	Report to DFES (000) and immediately enact emergency procedures	

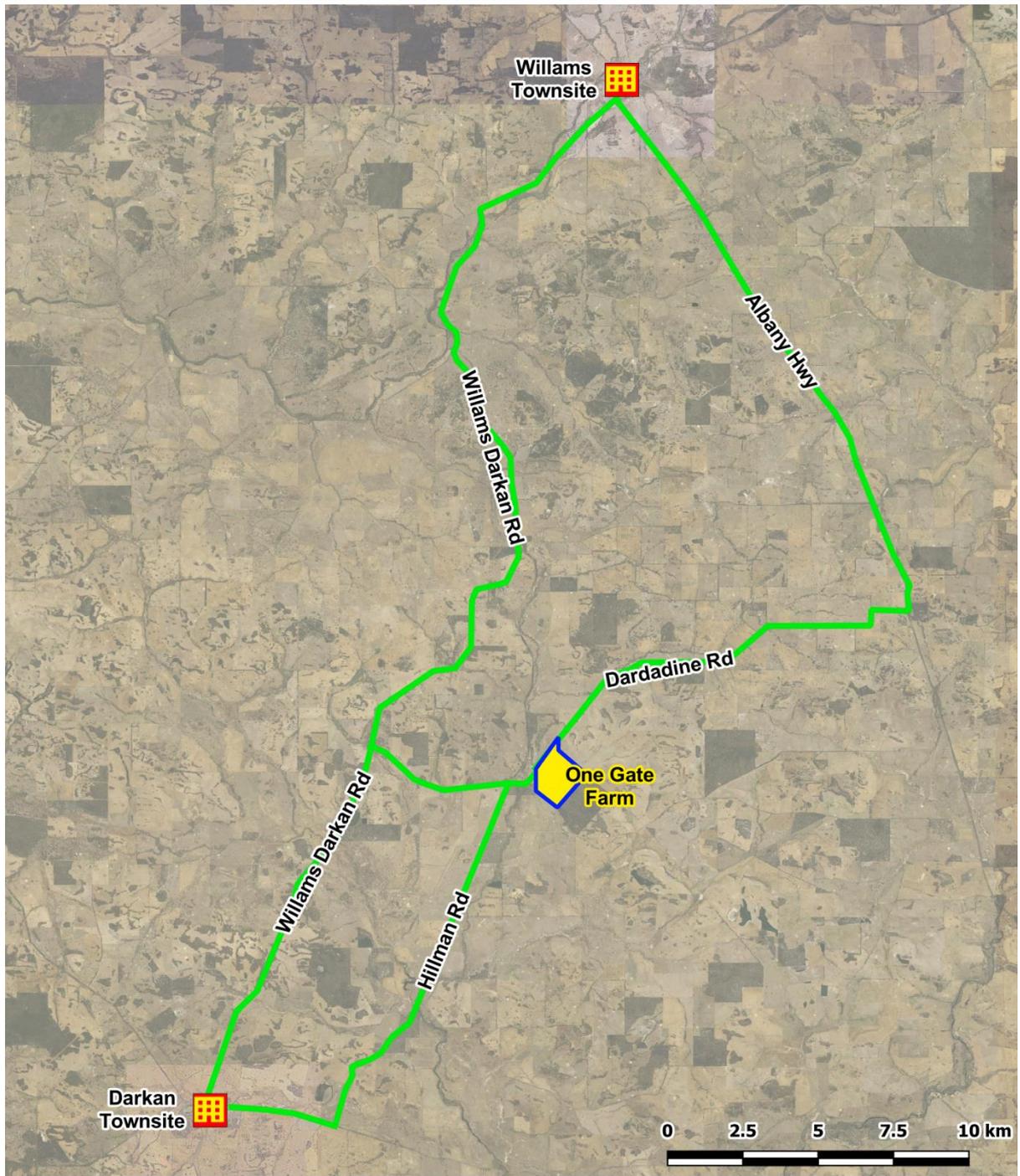
Bushfire Emergency Evacuation Plan

6.0 Emergency Procedure Locations and Transport

Evacuation	
Primary off-site location:	
Name of venue:	Darkan Town Hall [adjacent to Shire of West Arthur Council office]
Address of venue:	Butler Street, Darkan
Nearest cross-street:	Hillman Street
GPS coordinates:	33°20'15.8"S+116°44'29.1"E -33.3377269,116.7408635
Venue phone number:	08 9736 2000
Primary route to location:	West on Dardandine Road to Williams-Darkan Road, then south to Darkan townsite
Estimated travelling time to destination:	approx. 20 minutes
Secondary off-site location:	
Name of venue:	Williams Community Complex & Memorial Hall [adjacent to Williams Shire Council office]
Address of venue:	5 Brooking Street, Williams
Nearest cross-street:	Growse Street
GPS coordinates:	33°01'34.2"S+116°52'48.2"E -33.0261669,116.8794985
Venue phone number:	08 9885 1378
Primary route to location:	East on Dardandine Road to Albany Hwy, then north to Williams townsite
Estimated travelling time to destination:	approx. 30 minutes
Transportation arrangements:	
Transportation:	Visitors to use their own private transport to and from site

Bushfire Emergency Evacuation Plan

Evacuation Map



Evacuation Map

Size: A4
Scale: 1:160000



 One Gate Farm
 Access & Egress roads

 Townsites

by Jeremy Durston
BPAD: 36525, Level 3
Bushfire West Pty Ltd

Bushfire Emergency Evacuation Plan

7.0 Emergency Response

Procedures for Evacuation and Shelter-in-place	
<p>Note: Early evacuation should always be the primary action during a bushfire. You should never 'wait and see what happens'. Sheltering-in-place is the absolute last resort.</p>	
<p>The primary action to follow with an imminent bushfire threat is to:</p>	
EVACUATE <input checked="" type="checkbox"/>	SHELTER-IN-PLACE <input type="checkbox"/>
Trigger to Evacuate	<p>On advice from the Chief Warden or any attending emergency services personnel that the site may be impacted by fire.</p>
Action	Responsible Person
1	Advise DFES (000) of fire if emergency services are not in attendance
2	Act on any advice from emergency services
3	Inform all people at the site of the emergency
4	Collect the bushfire emergency kit
5	Account for all people
6	Check the camping area, shop and surrounds for people
7	Observe outside conditions and monitor buildings
8	Supervise the orderly evacuation of all people
9	Relocate all people to nominated off-site location(s)
10	If evacuation becomes unsafe, as a last resort move all remaining people into an onsite building and advise DFES (000)
Fire Warden or nominated delegate	

Bushfire Emergency Evacuation Plan

8.0 Recovery

Procedures following the bushfire if EVACUATED		
Action		Responsible Person
1	Advise DFES (000) once evacuation is complete	Fire Warden or nominated delegate
2	Act on any advice from emergency services	
3	Monitor bushfire alerts on the EmergencyWA website, DFES phone (133 337) and/ or local ABC Radio	
4	Await the All Clear advice from DFES	
5	Site to be inspected for impact by fire	
6	Upon being declared safe, site may re-open	

Procedures following the bushfire if SHELTERING-IN-PLACE as a last resort		
Action		Responsible Person
1	Advise DFES (000) of sheltering-in-place	Fire Warden or nominated delegate
2	Act on any advice from emergency services	
3	Monitor bushfire alerts on the EmergencyWA website, DFES phone (133 337) and/ or local ABC Radio	
4	Attend to any First Aid needs of people sheltering-in-place	
5	Await the All Clear advice from DFES	
6	Account for all onsite people	
7	Site to be inspected for impact by fire	
8	Supervise the departure of visitors as required	
9	Site to remain closed until declared safe	

9.0 Attachments

Attachments	
<input checked="" type="checkbox"/>	Visitor register
<input checked="" type="checkbox"/>	Fire danger ratings
<input checked="" type="checkbox"/>	Emergency warnings

FIRE DANGER RATINGS:

Use this tool daily during bushfire season to monitor conditions in your area.
Based on forecast weather conditions, the higher the rating, the higher the risk of bushfire.

BEFORE A BUSHFIRE



CATASTROPHIC

The worst conditions for a fire. Homes are not designed or built to withstand a fire in these conditions. The only safe place is away from bushfire risk areas.

EXTREME SEVERE VERY HIGH

Seek out information and be ready to leave or stay and actively defend your property if a fire starts. Only stay if you are 100% prepared.

HIGH LOW-MODERATE

Be vigilant. Check your fire plan and continue to monitor conditions as they can change quickly.

WHERE TO FIND THESE TOOLS AND OTHER IMPORTANT INFORMATION


emergency.wa.gov.au
firechat.wa.gov.au
DFES Twitter & Facebook


Local news
from the tv, radio
and websites


DFES emergency
information line:
13 3337


Your surroundings
could be your best
information source.

BUSHFIRE WARNING SYSTEMS:

Similar to a cyclone categorisation tool. The alerts provide information on the severity of bushfires once it has started. The alert level reflects the risk to life and property.

DURING A BUSHFIRE



EMERGENCY WARNING



WATCH AND ACT



ADVICE

EMERGENCY WARNING

An out of control fire is approaching very fast. You need to act immediately to survive. If you haven't prepared your home it is too late. You must leave now if it is safe to do so.

WATCH AND ACT

A fire is approaching and is out of control. Put your plan into action. If your plan is to leave, make sure you leave early. Only stay if you are mentally, physically and emotionally prepared to defend your property and you have all the right equipment.

ADVICE

A fire has started but there is no immediate danger. Stay alert and watch for signs of a fire.

When you understand these warning systems, continue to Step 1.