

29 January 2020  
Ref: 19037

WA Planning Commission  
Locked Bag 2506  
Perth, WA, 6001

Dear Sir/Madam,

**Re: Proposed Subdivision/Amalgamation – Lots 301 & 525 Adamson Rd, Merredin**

We have been engaged to prepare and lodge an application to excise a 13.27ha portion of Lot 301 Adamson Rd, Merredin and amalgamate it with the adjoining Lot 525. In support of this application we submit the following:

- Completed online application
- Completed Form 1A checklist
- Plan of subdivision
- Certificates of Title for both lots
- Consent Letter signed by all landowners
- Bushfire Management Plan

Proposal

We act for McIntosh Holdings Pty Ltd (T/as McIntosh & Son), who have entered into contracts with the owners of the above properties to purchase a 13.27ha (approx.) portion of Lot 301 and the whole of Lot 525. McIntosh & Son propose to amalgamate the two portions and re-locate their existing Merredin branch to the newly created site.

The reason for the relocation is that they have reviewed their current sites capacity for long term growth of their business and they have determined that it is not of sufficient size. They have found that having a larger site, with the capacity to demonstrate the machinery on site, is beneficial to clients. The larger site also provides them with the capacity to separate different activities resulting in a better work environment for their staff and for visitors to the site.

The area to be excised from Lot 301 extends west to east across the width of one paddock. South to north it extends from Adamson Rd to a 10m wide reserve off McKenzie Crescent that contains overhead power.

Recognizing that Lot 301 is currently zoned 'General Farming', an application has been lodged with the Shire of Merredin for a rezoning of the portion of that lot to 'General Industry'.

#### Site Description

Lot 301 is a 99.9ha farming property currently zoned 'General Farming'. The area proposed to be excised is located in the south-west corner of the property adjoining Lot 525.

The site is almost level with a slight fall from 326m AHD in the NE corner to 322m AHD in the SW corner. The land to be excised from Lot 301 is cleared of natural vegetation, having been historically farmed, and contains no natural features (rock outcrops, watercourses, etc). It contains no improvements with all existing buildings be retained on the balance 86ha site. Lot 525 is also cleared except for a band of remnant vegetation along its eastern boundary adjoining Lot 301.

We have reviewed the flood mapping for the townsite (from Councils Local Planning Strategy) and the site is outside the areas susceptible to flooding.

#### Infrastructure

The site is serviced by power. Reticulated water is available in McKenzie Cres and Mitchell St. Reticulated sewer is not available to the site.

A drainage reserve adjoins the western boundary of Lot 525.

Adamson Rd is only sealed at its intersection with Mitchell St. Thereafter it is constructed to an unsealed standard.

#### Bushfire

DFES mapping shows a section along the northern and eastern boundaries of Lot 301 that are mapped as bushfire prone due to the fuel loads on the adjoining reserves (to the north) and private property (to the east). A Bushfire Management Plan has been prepared and forms part of this application. The BMP demonstrates that the proposed subdivision / amalgamation meets the 4 elements of, and is compliant with, SPP 3.7.

#### SPP 5.4 Road & Rail Noise

The site is within the trigger distance of a strategic transport route (Great Eastern Hwy and the rail freight route) under SPP 5.4. The purpose of the application, however, is to support an industrial land use which is not a noise sensitive land use. It will not be affected by transport noise levels generated by these routes.

#### Strategic Documents

The Shire of Merredin's Local Planning Strategy provides a number of principles and objectives supporting and encouraging expansion of existing industries, promoting opportunities for economic development, making land available for commercial and industrial enterprise. These principles are reinforced in the Councils Strategic Community Plan and the Wheatbelt Development Commissions document entitles "Merredin – Growing Our Community – An Economic Development and Implementation Strategy". These principles are consistent with our clients plans for the future. McIntosh & Son have been trying to find a ready-made solution to their need for growth but have been unable to do this with the zoned land available.

Conclusion

McIntosh & Son need to expand their business in Merredin. There are limited opportunities to do this utilizing existing sites. In order to achieve this they have entered into a contract to purchase a property with an industrial zoning over it (Lot 525) and a portion of the adjoining land (Lot 301), with a condition on the latter that requires rezoning. This subdivision / amalgamation is necessary to enable the creation of the new lot to complete the transaction and enable McIntosh & Son to relocate and secure their future in Merredin.

If you require any further information please contact the undersigned.

Yours faithfully,



**SIMON O'HARA**  
**Director and Principal Planner**

encl

cc - Client





Our Ref : 159095  
Previous Ref :  
Your Ref :  
Enquiries : Rosa Rigali (6551 9306)

6 April 2020

***Application No: 159095 - Lot No 301, 525 Adamson Road Merredin***

The Western Australian Planning Commission has received an application for planning approval as detailed below. Plans and documentation relating to the proposal are attached. The Commission intends to determine this application within 90 days from the date of lodgement.

Please provide any information, comment or recommended conditions pertinent to this application by 18 May 2020 being 42 days from the date of this letter. The Commission will not determine the application until the expiry of this time unless all responses have been received from referral agencies. If your response cannot be provided within that period, please provide an interim reply advising of the reasons for the delay and the date by which a completed response will be made or if you have no comments to offer.

Referral agencies are to use the Model Subdivision Conditions Schedule in providing a recommendation to the Commission. Non-standard conditions are discouraged, however, if a non-standard condition is recommended additional information will need to be provided to justify the condition. The condition will need to be assessed for consistency against the validity test for conditions. A copy of the Model Subdivision Conditions Schedule can be accessed: [www.dplh.wa.gov.au](http://www.dplh.wa.gov.au)

Send responses via email to [referrals@dplh.wa.gov.au](mailto:referrals@dplh.wa.gov.au). **Always quote reference number "159095" when responding.**

This proposal has also been referred to the following organisations for their comments:  
*Western Power, Water Corporation, Public Transport Authority, Main Roads Wa, Dept Of Water & Environment Regulations, Dept Mines Ind Regulation And Safety, Dept Biodiversity, Conser & Attraction, Department Of Planning, Lands & Heritage and LG Shire Of Merredin.*

Yours faithfully

Ms Sam Fagan  
Secretary  
Western Australian Planning Commission

**APPLICATION DETAILS**

<b>Application Type</b>	Subdivision	<b>Application No</b>	159095
<b>Applicant(s)</b>	Statewest Planning		
<b>Owner(s)</b>	Mr Arthur Adamson; Mr Ben Daniell; Mr Andrew Page		

e-mail: <mailto:referrals@dplh.wa.gov.au>; web address: <http://www.dplh.wa.gov.au>



<b>Locality</b>	Lot No 301, 525 Adamson Road Merredin		
<b>Lot No(s).</b>	301, 525	<b>Purpose</b>	Industrial,Rural
<b>Location</b>		<b>Local Gov. Zoning</b>	General Farming,Light Industry,Parks And Recreation
<b>Volume/Folio No.</b>	2741/719, 2741/720	<b>Local Government</b>	Shire Of Merredin
<b>Plan/Diagram No.</b>	64537, 67327	<b>Tax Sheet</b>	
<b>Centroid Coordinates</b>	mE mN		
<b>Other Factors</b>	BUSHFIRE PRONE AREA, HERITAGE STATE REGISTER PLACE 13516, REMNANT VEGETATION (NLWRA), MRWA - STATE ROAD EXTERNAL REFERRAL, DMP, FLOODPLAIN DEVELOPMENT CONTROL AREA, THREATENED ECOLOGICAL COMMUNITY BUFFER, PTA RAILWAY, THREATENED FAUNA BUFFER		

**Application for Approval of Freehold or Survey Strata Subdivisions**

Lodgement ID: 2020-216716

Your Reference	19037
Location of Subject Property	Lots 301 & 525 Adamson Rd, Merredin
No. of applicants	1
Are you applying on your own behalf?	Yes
Are you the primary applicant?	Yes
Do you have consent to apply from all landowners?	Yes
Lodgement Type	Subdivision
Submitted by	Simon O'Hara
Email	simon.ohara@statewestplanning.com.au

**About the land**

Number of current lots on the land	2	Total number of proposed lots on the land including balance lots	2
Drainage Reserves	0	Public Access Ways	0
Recreation Reserves	0	Right of Ways	0
Road Reserves	0	Road Widening	0
Number of fee paying lots	2	Number of fee exempt lots	0

**What is the proposed use/development?**

Proposed Use	Lot size	Number of Lots	
Industrial	10 HA - 25 HA	1	
Rural	Over 25 HA	1	
Local Government	Shire Of Merredin	Existing dwellings	Yes
Is common property proposed	No		

**Applicants****Primary applicant (1)**

Is the applicant a company/organisation?	Yes	Is the applicant a landowner?	No
Name/Company	Statewest Planning	ABN / ACN	58 217 393 366
Email	simon.ohara@statewestplanning.com.au	Phone number	92741363

**Address**

Street address	PO Box 1377 -	Town / Suburb or City	Midland
State	WA	Post Code	6936
Country	AUSTRALIA	OR Non-Australian Address, P.O. Box, & etc	N/A

**Certificate of Title Details****Lots with certificate (1)**

Volume	2741	Folio	719
Lot Number	301	Plan Number	64537
Total land area	99.9060	Land Area Units	Hectares
Reserve number (if applicable)	N/A	No. of landowners	1
Is the Landowners name different to that shown on the Certificate of Title?			No

**Landowners****Landowner (1)**

Full name	Mr Arthur Adamson	Company / Agency	N/A
ACN / ABN	N/A	Landowner type	Registered Proprietor/s
Address			
Street address	PO Box 80	Town / Suburb or City	Merredin
State	WA	Post code	6415
Country	AUSTRALIA	OR Non-Australian Address, P.O. Box, & etc	N/A

Lots with certificate (2)

Volume	2741	Folio	720
Lot Number	525	Plan Number	67327
Total land area	2.3348	Land Area Units	Hectares
Reserve number (if applicable)	N/A	No. of landowners	2
Is the Landowners name different to that shown on the Certificate of Title?			No

Landowners

Landowner (1)

Full name	Mr Ben Daniell	Company / Agency	N/A
ACN / ABN	N/A	Landowner type	Registered Proprietor/s
Address			
Street address	64 Old York Road	Town / Suburb or City	Northam
State	WA	Post code	6401
Country	AUSTRALIA	OR Non-Australian Address, P.O. Box, & etc	N/A

Landowner (2)

Full name	Mr Andrew Page	Company / Agency	N/A
ACN / ABN	N/A	Landowner type	Registered Proprietor/s
Address			
Street address	64 Old York Road	Town / Suburb or City	Northam
State	WA	Post code	6401
Country	AUSTRALIA	OR Non-Australian Address, P.O. Box, & etc	N/A

Subdivision detail

Number of dwellings	1	Dwelling retained	Yes
Dwelling description	N/A		
Number of outbuildings/structures	15	Structure/s retained	Yes
Other description	N/A		
Structure description	N/A		
Is a battleaxe lot/s proposed?			No
Does plan show the width and length of the access leg, the area of the access leg and total area of the rear lot			Not applicable
Has the land ever been used for potentially contaminating activity			No
Does the land contain any sites that have been classified under the Contaminated Sites Act 2003			No
Does the land contain any sites that have been reported or required to be reported under the Contaminated Sites Act 2003			No
Is the land located in an area where site characteristics or local knowledge lead you to form the view that there is a significant risk of acid sulfate soils in this location			No
Is this application to be assessed under the Liveable Neighbourhoods policy and is supporting documentation attached?			No
Is the development with in a Bushfire Prone Area?			Yes
Are there any dewatering or drainage works proposed to be undertaken			No
Is excavation of 100 cubic metres or more of soil proposed			No
If yes did the Acid Sulfate Soils investigation indicate acid sulfate soils were present			No

Fee & Payment

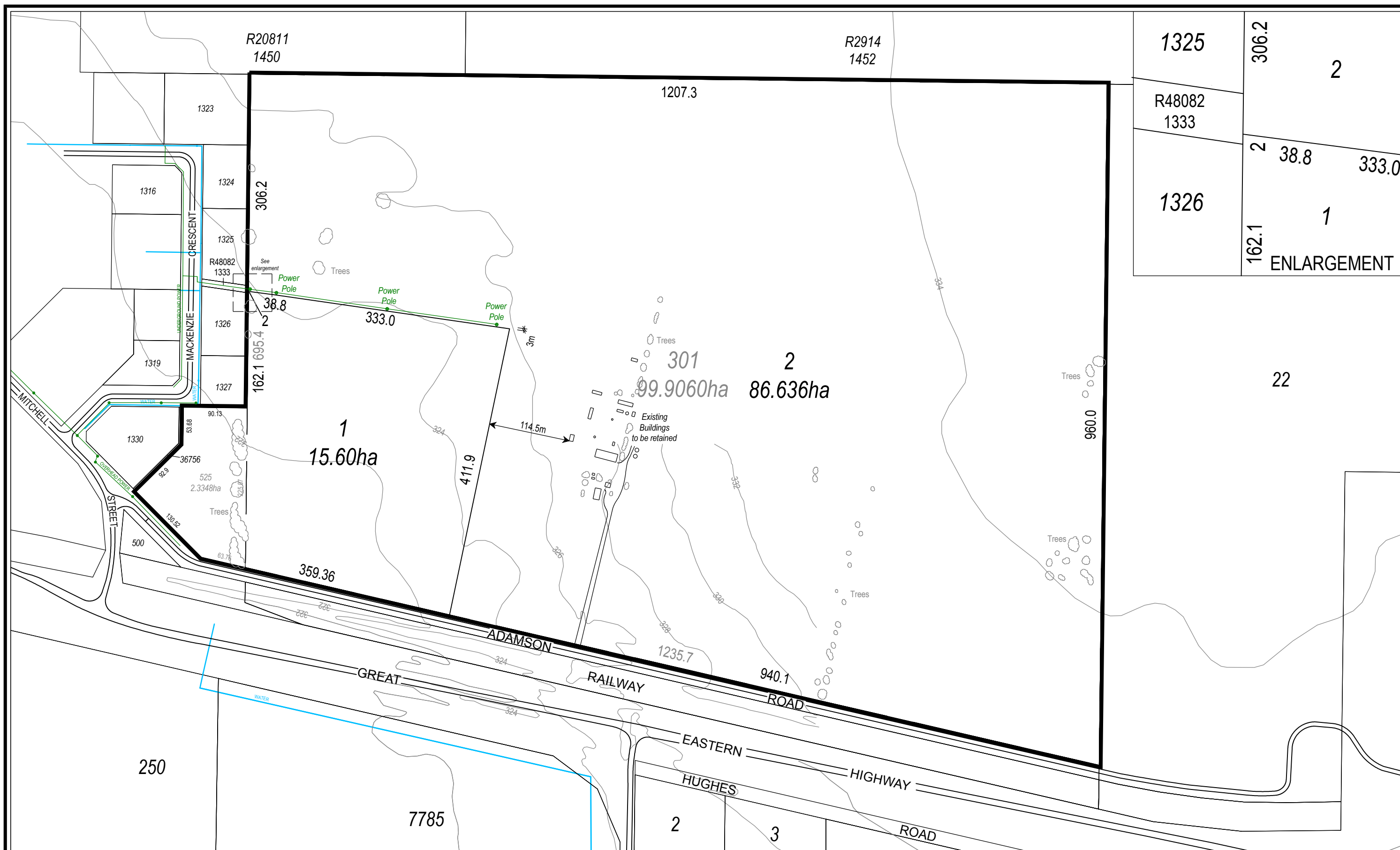
Fee amount	\$3,487.00	Payment Type	By Anyone
------------	------------	--------------	-----------

Attachments

Attachment name	Attachment type
1. BMP v1.0-8.pdf	Bushfire Attack Level(BAL) assessment
2. CT Lot 301-1.pdf	Certificate of Title
3. CT Lot 525-3.pdf	Certificate of Title
4. Form 1A Checklist-9.pdf	Subdivision Checklist
5. Signed Consent Letter-2.pdf	Authorised Letter of Consent
6. Signed Consent Letter-4.pdf	Authorised Letter of Consent
7. Signed Consent Letter-5.pdf	Authorised Letter of Consent
8. Subdivision Application Letter Signed-7.pdf	Subdivision Report/s
9. Subdivision Plan-6.pdf	Subdivision Plan



Perth	Albany	Bunbury	Geraldton	Mandurah
140 William Street	PO Box 1108	Sixth Floor	Regional Planning and Strategy	Unit 2B
Perth	Albany	Bunbury Tower	Office 10	11-13 Pinjarra Road
Western Australia, 6000,	Western Australia, 6330	61 Victoria Street	209 Foreshore Drive	Mandurah
Locked Bag 2506 Perth, 6001		Bunbury	Geraldton	Western Australia, 6210
		Western Australia, 6230	Western Australia, 6530	
Tel: (08) 6551 9000	Tel: (08) 9892 7333	Tel: (08) 9791 0577	Tel: (08) 9960 6999	Tel: (08) 9586 4680
Fax: (08) 6551 9001	Fax: (08) 9841 8304	Fax: (08) 9791 0576	Fax: (08) 9964 2912	Fax: (08) 9581 5491



0 50 100 150 200m  
SCALE 1:5000  
ORIGINAL PLAN SIZE: A3



Statewest Planning  
Midland House  
69 Great Northern Highway, Midland  
PO Box 1377, Midland WA 6936  
t. 9274 1363 m. 0418 932 792  
e. simon.ohara@statewestplanning.com.au

LEGEND:

Subject Land.....

NOTE:

1. Areas and dimensions are subject to survey.

DATE: 22.11.2019

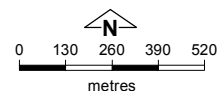
DEPARTMENT OF PLANNING, LANDS  
AND HERITAGE

DATE  
25-Mar-2020

FILE  
159095

PROPOSED SUBDIVISION  
AND AMALGAMATION

LOT 301 (No. 75) & LOT 525 ADAMSON ROAD  
MERREDIN  
Shire of Merredin





# 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 525 & Lot 301 Adamson Road

**Suburb:** MERREDIN

**State:** WA

**P/code:** 6415

**Local government area:** Shire of Merredin

**Description of the planning proposal:** Subdivision Application

**BMP Plan / Reference Number:** 190760

**Version:** v1.0

**Date of Issue:** 24/01/2020

**Client / Business Name:** Proponent - Statewest Planning

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"/>
<b>Is the proposal any of the following special development types (see SPP 3.7 for definitions)?</b>		
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 type="checkbox"/>	<input checked="" type="checkbox"/>

If the development is a special development type 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.)?

N/A

**Note:** The decision maker (e.g. 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

<b>Name</b> Kathy Nastov	<b>Accreditation Level</b> Level 3	<b>Accreditation No.</b> BPAD 27794	<b>Accreditation Expiry</b> 01/08/2020
<b>Company</b> Bushfire Prone Planning		<b>Contact No.</b> 6477 1144	

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

Signature of Practitioner



Date

24/01/2020



---

# Bushfire Management Plan

Subdivision Application  
(Rezoning & Amalgamation of Lots)

---

Lots 525 & 301 Adamson Road, Merredin

---

Shire of Merredin

Job Number:	190760
Assessment Date:	16 January 2020
Report Date:	24 January 2020

BPP Group Pty Ltd t/a Bushfire Prone Planning  
ABN: 39 166 551 784

Level 1, 159-161 James Street  
Guildford WA 6055

PO Box 388  
Guildford WA 6935

Ph: 08 6477 1144

Email: [admin@bushfireprone.com.au](mailto:admin@bushfireprone.com.au)



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**Disclaimer**

The measures contained in this Bushfire Management Plan are considered to be minimum standards and they do not guarantee that a building 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 extreme weather conditions. Additionally, the correct implementation of the required bushfire protection measures (and any associated response/evacuation plan if applicable) will depend, among other things, on the actions of the landowners or occupiers over which Bushfire Prone Planning has no control.

All surveys, forecasts, projections and recommendations made in this report associated with the project 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.

---




## Document Control

Version	Version Details	Date Submitted
1.0	Initial BMP Document	24-Jan-20

Author	Accreditation	Signature
Greg Dunstan	BPAD Level 1 - No. 16382	
Co-author		

- - -

Reviewed/Approved		
Kathy Nastov	BPAD Level 3 - No. 27794	

### Document Content Compliance Statement

*This Bushfire Management Plan (the Plan) provides the required information to address State Planning Policy No. 3.7: Planning in Bushfire Prone Areas - December 2015 (SPP 3.7), the associated Guidelines for Planning in Bushfire Prone Areas - WAPC 2017 v1.3 (Guidelines), and any additional information as directed by the WA Planning Commission (WA Department of Planning, Lands and Heritage). It is fit for accompanying a planning application.*

Subdivision BMP v7.3

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## Executive Summary

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Bushfire Prone Planning (BPP Group Pty Ltd) has been commissioned by McIntosh & Son to prepare a Bushfire Management Plan including an assessment against the Bushfire Protection Criteria for the Subdivision of Lot 301 Adamson Road, Merredin and the subsequent proposed amalgamation of Lot 525 with the newly created portion of Lot 301. The existing properties consist of a 99.9060ha Rural zoned Lot and a 2.3348ha Industrial zoned Lot, with a change in zoning proposed for the subdivided portion of Lot 301 to 'Industrial'. The subdivided portion of Lot 301 comprising of 13.27ha.

Detailed within this report, contour mapping is utilised to visually show the potential radiant heat impacts (from bushfire prone vegetation), as separate Bushfire Attack Level contours across the site. The BAL's have been derived for the proposed Lots within the assessed area. The purpose is to inform future development planning by determining or indicating the Bushfire Attack Levels (BAL's) that future buildings, within the amalgamated Lot, are potentially subject to.

Against the Bushfire Protection Criteria, the decision maker's assessment of the Proposal will be on the basis of it being able to meet the Acceptable Solutions, including the future construction of buildings to a BAL-29 standard or lower and management of any landscaping and residual vegetation to maintain low threat conditions on the site. In summary, this proposal meets the following intent of the Elements below:

- For Element 1 'Location', the subdivision (Lot 301) and amalgamation of Lots is able to achieve the acceptable solution (by being located in an area that will on completion be subject to BAL-29 or less). The wider area surrounding the proposed subdivision indicates sufficient management of bushfire fuels exists and can be reasonably expected to be managed throughout the seasonal months conducive to bushfire as much of the land is utilised for crops and subsequently harvested. Properties are also required to comply with the Shire of Merredin Firebreak Notice (Firebreak Order) requirements;
- For Element 2 'Siting and Design' the Proposal is able to meet the acceptable solutions by future habitable buildings being able to achieve an Asset Protection Zone (APZ) of sufficient size to ensure the radiant heat impact does not exceed BAL-29. APZ's will be managed in a low-fuel state within the new amalgamated Lot;
- For Element 3 'Vehicular Access', the location of the subdivision (Lot) is able to meet the current acceptable solution A3.1 and E3.1 (provision of two access routes to different destinations). Driveways will meet the technical standards for construction where applicable and no additional roads are proposed; and
- For Element 4 'Water', the amalgamated Lot is able to achieve the acceptable solution as it is located in a reticulated water supply area where existing hydrants are available for fire-fighting operations.

Future buildings within 100 metres of classified vegetation will be constructed to standards which correspond to the determined BAL's, as required by AS 3959-2018 Construction of buildings in bushfire prone areas. As this proposal does not identify the actual location of building works within the Lot, there will be a requirement to confirm and/or determine the BAL ratings for individual building works once a building site has been identified.

Only a portion of the site, the original Lot 301, currently lies within a bushfire prone area as defined by the OBRM Map of Bushfire Prone Areas. The proposed new Lot 1 and Lot 525 (to be amalgamated) is not highlighted in the bushfire prone area mapping as currently being designated bushfire prone.

# 1 The Proposal and Purpose of the Plan

---

## 1.1 Details

---

Proponent:	Statewest Planning
Site Address:	Lot 525 & Lot 301 Adamson Road, MERREDIN
Local Government:	Shire of Merredin
Site Area:	Lot 301 - 99.9060ha, Lot 525 - 2.3348ha
No. of Proposed Lots:	2 Lots
Planning Stage:	Subdivision & Amalgamation
Subdivision Type:	Subdivision - small number of Lots
Overview of the Proposal:	Bushfire management planning assessment and compliance requirement report for the subdivision of Lot 301 and the subsequent amalgamation of Lot 525 & portion of Lot 301 Adamson Road, Merredin.
Bushfire Prone Planning Commissioned to Produce the Plan by:	McIntosh & Son
Purpose of the Plan:	To accompany a planning application
For Submission to:	WA Planning Commission (WAPC) & Shire of Merredin

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Figure 1.1  
**Proposed Subdivision**

Lot 301 on Plan 64537 and  
Lot 525 on Plan 67327  
Adamson Road  
MERREDIN 6415  
**SHIRE OF MERREDIN**

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

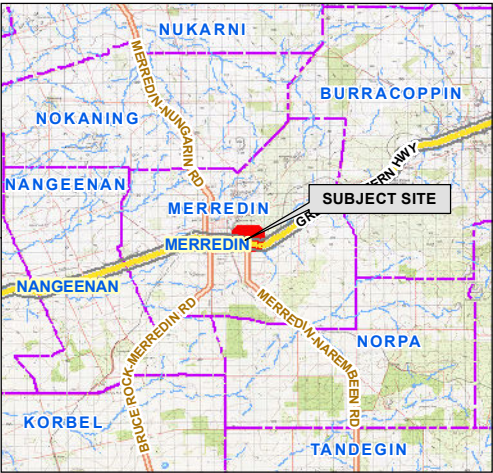
- Subject Site
- Other Lots
- Hydrant
- Proposed Subdivision

**Existing Building**

- Class 1(a)
- Class 10(a)



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



Aerial Imagery : Landgate/SLIP  
Image Date : Aug 2019

Coordinate System: GDA 1994 MGA Zone 50  
Projection: Universal Transverse Mercator Units: Metre  
Map compiled by: Ian Ross 15/01/2020  
Map updated by: Ian Ross 15/01/2020

**Disclaimer and Limitation:** This map has been prepared for bushfire management planning purposes only. All depicted areas, contours and any dimensions shown are subject to survey. Bushfire Prone Planning does not guarantee that this map is without flaw of any kind and disclaims all liability for any errors, loss or other consequence arising from relying on any information depicted.  
Map Document Path / Name: K:\Projects\Jobs 2019\190760 - Lot 525 and Lot 301 Adamson Road Merredin (BMP)\Mapping\MXD\190760\_SUB\_Lots 525 301 Adamson Road Merredin BMP.mxd

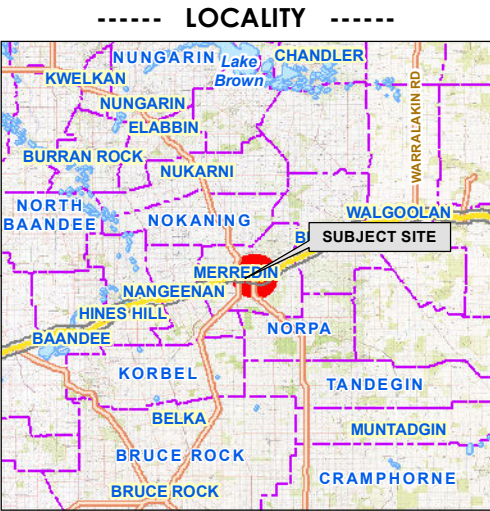
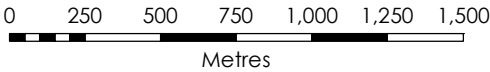




Figure 1.2  
**Location Plan**

Lot 301 on Plan 64537 and  
Lot 525 on Plan 67327  
Adamson Road  
MERREDIN 6415  
**SHIRE OF MERREDIN**

- **LEGEND** -----
- Locality / Suburb
  - Reserves
  - Bush Fire Brigade
  - State Emergency Service Unit
  - Volunteer Fire & Rescue Service



Aerial Imagery : Landgate/SLIP  
Image Date : Aug 2019

Coordinate System: GDA 1994 MGA Zone 50  
Projection: Universal Transverse Mercator Units: Metre  
Map compiled by: Ian Ross 15/01/2020  
Map updated by: Ian Ross 15/01/2020



Table 1.1.1: Details of Lots

ORIGINAL (CURRENT) LOTS			
Lot No.	Street No.	Lot Area	Zoning
525	-	2.3348ha	Industrial
301	-	99.9060ha	Rural

PROPOSED SUBDIVISION OF LOT 301		
Lot No.	Street No.	Lot Area
1	-	13.27ha
2	-	86.636ha

PROPOSED AMALGAMATION OF LOTS		
Lot No.	Street No.	Lot Area
525	-	2.3348ha
1	-	13.27ha

PROPOSED NEW LOT			
Lot No.	Street No.	Lot Area	Zoning
525	-	15.6048ha	Industrial



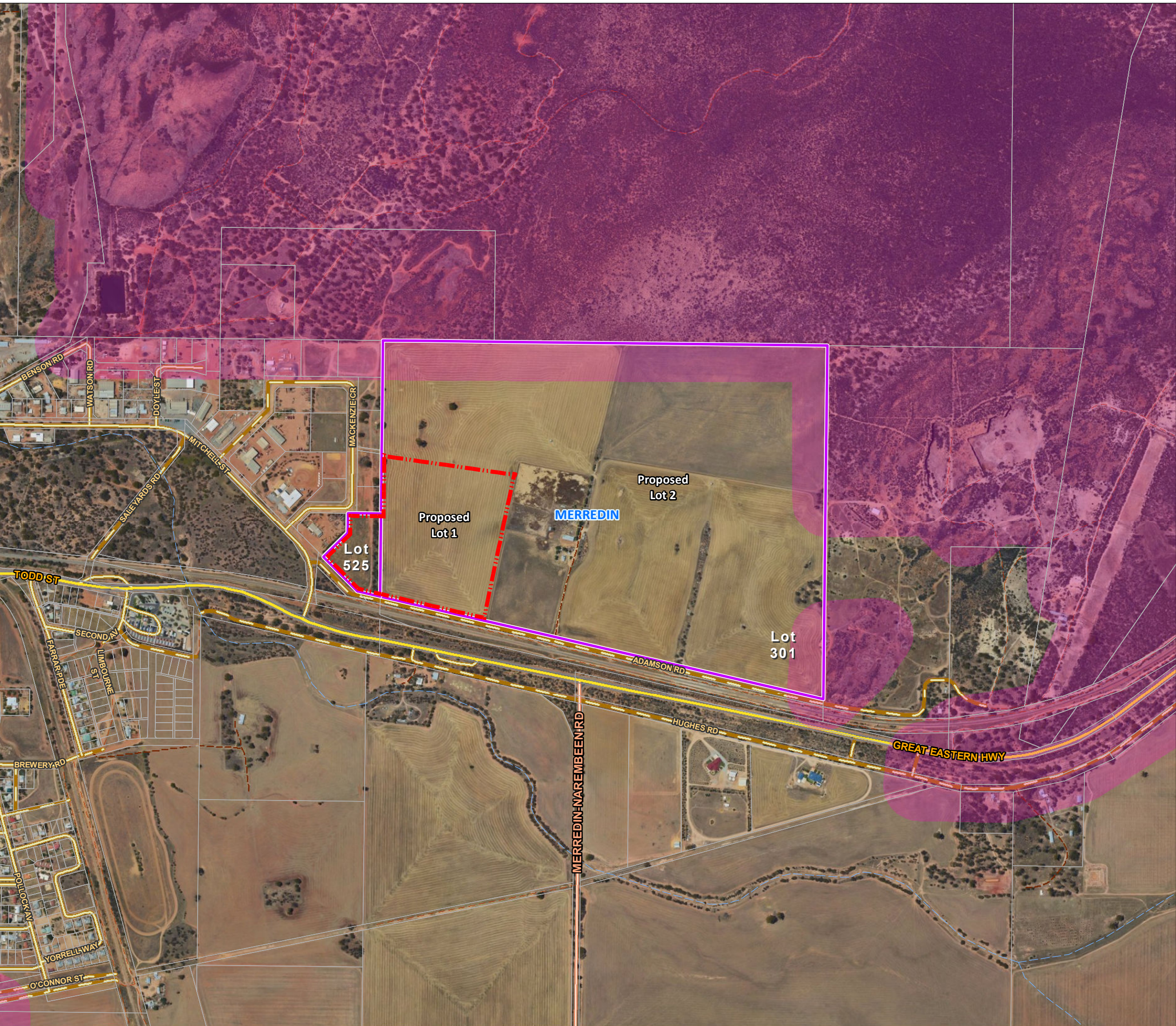
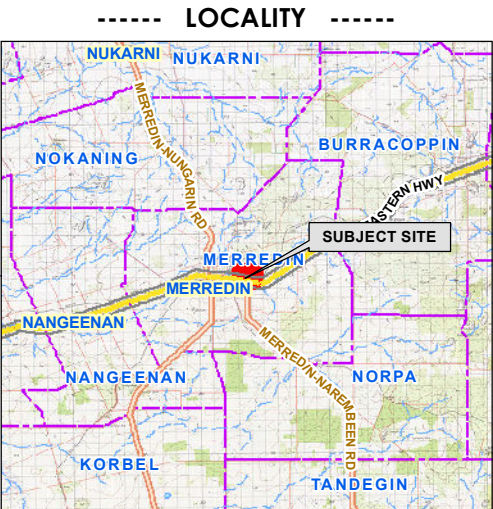
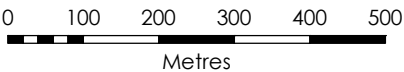


Figure 1.3  
**Bushfire Prone Area**

Lot 301 on Plan 64537 and  
Lot 525 on Plan 67327  
Adamson Road  
MERREDIN 6415  
**SHIRE OF MERREDIN**

- **LEGEND** -----
- Subject Site
  - Other Lots
  - Locality / Suburb
  - Proposed Subdivision
  - Bushfire Prone Areas (2019)



Aerial Imagery : Landgate/SLIP  
Image Date : Aug 2019

Coordinate System: GDA 1994 MGA Zone 50  
Projection: Universal Transverse Mercator Units: Metre  
Map compiled by: Ian Ross 15/01/2020  
Map updated by: Ian Ross 15/01/2020



## 1.2 Existing Documentation Relevant to the Construction of this Plan

This section acknowledges any known reports or plans that have been prepared for previous planning stages, that refer to the subject area and that may or will impact upon the assessment of bushfire risk and/or the implementation of bushfire protection measures and will be referenced in this Bushfire Management Plan.

RELEVANT DOCUMENTS		
Existing Document	Copy Provided by Client	Title
Structure Plan	N/A	-
Environmental Report	N/A	-
Landscaping (Revegetation) Plan	N/A	-
Bushfire Risk Assessments	N/A	-

The bushfire management plan may be required to be updated to address any future bushfire impacts arising from subsequent reports or plans.

## 2 Environmental Considerations

### 2.1 Native Vegetation – Modification and Clearing

**'Guidelines' s2.3:** "Many bushfire prone areas also have high biodiversity values. SPP 3.7 policy objective 5.4 recognises the need to consider bushfire risk management measures alongside environmental, biodiversity and conservation values."

Existing conservation areas that are potentially affected by the development proposal are required to be identified. This may result in vegetation removal/modification prohibition or limitations. These areas include National Parks, Nature Reserves, Wetlands and Bush Forever sites.

**Environmental Protection Act 1986:** "Clearing of native vegetation in Western Australia requires a clearing permit under Part V, Division 2 of the Act unless clearing is for an exempt purpose. Exemptions from requiring a clearing permit are contained in Schedule 6 of the Act or are prescribed in the Environmental Protection Regulations" ('Guidelines' s2.3).

**The Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act):** This Act administered by the Australian Government Department of Environment, provides a national scheme of environment and heritage protection and biodiversity conservation. Nationally threatened species and ecological communities are a specific matter of significance. Areas of vegetation can be classified as a Threatened Ecological Community (TEC) under the EPBC Act and consequently have removal restrictions imposed.

#### VEGETATION MODIFICATION AND CLEARING ASSESSMENT

Will on-site clearing of native vegetation be required?	N/A
Does this have the potential to trigger environmental impact/referral requirements under State and Federal environmental legislation?	N/A
Identified environmental legislation applicable to the Proposal site - No.1:	N/A
Identified environmental legislation applicable to the Proposal site - No.2:	N/A
For the proposed development site, have any areas of native vegetation been identified as species that might result in the classification of the area as a Threatened Ecological Community (TEC)?	N/A
Potential TEC species identified:	N/A

The bushfire assessment and management strategies contained in this 'Plan', assume that environmental approval will be achieved or clearing permit exemptions will apply if applicable. Modification of vegetation and clearing is required to achieve areas for building sites for the industrial land use and new boundary alignments. The subdivision of Lot 301 is located in an area predominantly used for cropping purposes and is primarily devoid of native vegetation. The existing Lot 525 is a site that can be entirely cleared as a result of the Industrial zoning.

## Development Design Options

Establishing development in bushfire prone areas can adversely affect the retention of native vegetation through clearing associated with the creation Lots and/or Asset Protection Zones. Where loss of vegetation is not acceptable or causes conflict with landscape or environmental objectives, it will be necessary to consider available design options to minimise the removal of native vegetation.

MINIMISING THE REMOVAL OF NATIVE VEGETATION		
Design Option	Identified	Adopted
Reduction of lot yield	N/A	N/A
Cluster development	N/A	N/A
Construct building to a standard corresponding to a higher BAL rating as per BCA (AS 3959-2018 and/or NASH Standard)	N/A	N/A
Modify the development location	N/A	N/A

The subject subdivision site (Lot 301) comprises existing developed land as part of existing agriculture and building works, with remnant vegetation along the adjoining Lot 525 boundary line. The future construction of buildings on the proposed amalgamated Lots requires the development of asset protection zones that will involve removal of unmanaged vegetation, predominantly grasses. The Lot design facilitates asset protection zone development to be contained wholly within the Lot.

## Impact on Adjoining Land

Is this planning proposal able to implement the required bushfire measures within the boundaries of the land being developed so as not to impact on the bushfire and environmental management of neighbouring reserves, properties or conservation covenants?	Yes
---	-----

The subdivision and amalgamation of Lots is not reliant upon bushfire measures being implemented external to the site to achieve compliance with bushfire protection criteria. The future subdivision can achieve asset protection zone development and maintenance of vegetation in a low threat state, which will ensure the bushfire risk will be reduced to the immediate surrounding properties due to the continued ongoing management of this vegetation.

Compliance is regulated via the bushfire management plan for the site and the Shire of Merredin annual bushfire management requirements (Firebreak Order). Bushfire management measures external to the site are not required as part of this proposal.

## 2.2 Re-vegetation / Retained Vegetation / Landscape Plans

Is re-vegetation of riparian zones and/or wetland or foreshore buffers and/or public open space a part of this Proposal?	No
Is the requirement for ongoing maintenance of existing vegetation in riparian zones and/or wetland or foreshore buffers and/or public open space a part of this Proposal?	No

In assessing vegetation for bushfire threat, consideration must be given to possible future vegetation changes likely on the site that is being assessed and in particular those that would have the potential to increase the bushfire risk. This may be due to growth of existing vegetation or growth of planned landscape plantings. There must be careful consideration of the creation of vegetation corridors where they join offsite vegetation, and which may provide a route for fire to enter an area of future development.

Where an environmental report or landscaping (revegetation) is required as a condition of future development, the bushfire management planning will be required to address any bushfire impacts arising from these subsequent reports or plans.

## 2.3 Vegetation modification

This bushfire planning assessment is required to show that the Bushfire Protection Criteria can be complied with in the future. The intent is to ensure future development is located where the bushfire hazard level is (or will on completion be) moderate or low and subject to a maximum Bushfire Attack Level of BAL-29.

The assumption used to facilitate the determining of Indicative Bushfire Attack Levels in the Proposed Subdivision Area is that vegetation onsite is under the control of the landowner/s and therefore can be removed or modified to present a low bushfire threat (Note: any proposed vegetation removal may be subject to local government approval, dependent on the lot's specific situation with respect to identified environmental protection areas and the lot size).

Landscaping within the site requires consideration of the bushfire management planning requirements to ensure an increase in bushfire hazards does not occur, nor alter bushfire attack levels determined for the site. All onsite landscape planting within asset protection zones is to be managed in a low threat state as per the criteria detailed in AS 3959-2018 s2.2.3(f) 'Low threat vegetation' and all other vegetation managed in accordance with the annual Shire of Merredin Firebreak Notice (Firebreak Order). This ensures BAL separation distances can be effectively maintained and bushfire hazards on-site are effectively reduced.

## 3 Potential Bushfire Impact Assessment

### 3.1 Assessment Input

#### 3.1.1 Fire Danger Index (FDI) Applied

AS 3959-2018 specifies the fire danger index values to apply for different regions as per Table 2.1. The values used in the model calculations are for the Forest Fire Danger Index (FFDI) and for which equivalent representative values of the Grassland Fire Danger Index (GFDI) are applied as per Appendix B. The values can be refined if appropriately justified.

Table 3.1.1: Applied FDI Value

FDI Value			
Vegetation Area	As per AS 3959 - 2018 Table 2.1	As per DFES for the Location	Value Applied
1 to 9	80	N/A	80

#### Existing Vegetation Identification, Classification and Effective Slope

Vegetation identification and classification has been conducted in accordance with AS 3959-2018 s2.2.3 and the Visual Guide for Bushfire Risk Assessment in WA (DoP February 2016).

When more than one vegetation type is present, each type is identified separately with the worst-case scenario being applied as the classification. The predominant vegetation is not necessarily the worst-case scenario.

The vegetation structure has been assessed as it will be in its mature state (rather than what might be observed on the day). Areas of modified vegetation are assessed as they will be in their natural unmodified state (unless maintained in a permanently low threat, minimal fuel condition, satisfying AS 3959-2018 s2.2.3.2(f) and asset protection zone standards). Vegetation destroyed or damaged by a bushfire or other natural disaster has been assessed on its revegetated mature state.

**Effective Slope:** Is the ground slope under the classified vegetation and is determined for each area of classified vegetation. It is the measured or determined slope which will most significantly influence the bushfire behaviour in that vegetation as it approaches a building or site. Where there is a significant change in effective ground slope under an area of classified vegetation, that will cause a change in fire behaviour, separate vegetation areas will be identified, based on the change in effective slope, to enable the correct assessment.



Table 3.1.2: Vegetation identification and classification

ALL VEGETATION WITHIN 150 METRES OF THE LOT				
Vegetation Area	Identified Classification Types <sup>1</sup> or Description if 'Excluded'	Applied Classification <sup>2</sup>	Effective Slope Under Classified Vegetation	
			degrees	description
1 (Subject Site)	(Rezoning to 'Industrial' & Amalgamation of Lots, to be modified to Non-vegetated areas & Low Threat Vegetation)	Excluded AS3959-2018 2.2.3.2 (e) & (f)	N/A	N/A
2	(Existing development 'Industrial' zoning, cleared to Non-vegetated areas & Low Threat Vegetation)	Excluded AS3959-2018 2.2.3.2 (e) & (f)	N/A	N/A
3	(Existing development 'Rural' zoning, cleared to Non-vegetated areas & Low Threat Vegetation)	Excluded AS3959-2018 2.2.3.2 (e) & (f)	N/A	N/A
4	Grassland – G-21 (Cropping land – Closed Tussock Grasses, <10% foliage cover)	Class G Grassland	0	Upslope
5	Woodland – B-05 (Tall Eucalypt trees ~18m in height, ~30% foliage cover, with some low shrubs/sedges, sparse hummock grass understorey)	Class B Woodland	0	Upslope
6	Scrub – D-14, Shrubland – C-12 (Melaleuca, Acacia and Grevillea Shrubs, ~30% foliage cover with tall & low shrubs, hummock grass understorey)	Class D Scrub	0	Upslope
7	Woodland – B-05, Tall Shrubland – E-15, Scrub – D-14 (Tall Eucalypt trees ~18m in height, ~30% foliage cover, with some low shrubs/sedges, sparse hummock grassland, Melaleuca, Acacia and Grevillea Shrubs)	Class B Woodland Class E Mallee Class D Scrub	0	Upslope
8	Grassland – G-21 (Cropping land, <10% foliage cover)	Class G Grassland	0	Upslope

9	Woodland – B-05, Scrub – D-14 (Tall Eucalypt trees ~20m in height, ~30% foliage cover, with some low shrubs/sedges, sparse hummock grassland, Melaleuca, Acacia and Grevillea Shrubs ~2m to 2.5m in height)	Class B Woodland Class D Scrub	0.5	Downslope
	&		&	
	0		Upslope	

Representative photos of each vegetation area, descriptions and classification justification, are presented on the following pages. The areas of classified vegetation are defined, and the photo locations identified on the topography and classified vegetation map, Figure 3.1.

Note<sup>1</sup>: As per AS 3959-2018 Table 2.3 and Figures 2.4(A) and 2.4 A-G

Note<sup>2</sup>: As per AS 3959-2018 Table 2.3.

Note: Vegetation within the assessment area external to the site comprises typically 'Scrub' classifiable vegetation. Within the classifiable areas, additional vegetation types interface with the larger extents of the worst-case scenario vegetation type and this vegetation has been captured in the above table.

It is assumed for the purposes of assessment that Area 1 (Subject Site) will be modified to low threat as part of subdivision works and ongoing management in a low threat state in perpetuity. Area 2 (Existing industrial area) can be managed through ongoing development of the currently subdivided small parcels of land.

<b>Vegetation Area 1</b>	<b>Classification Applied or Exclusion Clause:</b> Excluded AS3959-2009 2.2.3.2 (f)
<b>Vegetation Type Present:</b> Low Threat Vegetation	
<b>Description / Classification Justification:</b> Proposed portion of Lot 301 to be subdivided. Currently harvested cropping land with stubble less than 100mm in height. Assumed for the purposes of assessment, this area to be modified post development and managed in perpetuity as part of intended industrial land use.	
<div>   </div>	
<div> <div>Photo ID: 1</div> <div>Photo ID: 2</div> </div>	
<b>Vegetation Area 2</b>	<b>Classification Applied or Exclusion Clause:</b> Excluded AS3959-2018 2.2.3.2 (e)&(f)
<b>Vegetation Type Present:</b> Non-vegetated Areas & Low Threat Vegetation	
<b>Description / Classification Justification:</b> Sheds, cleared gravel areas and subdivided allotments, roads, buildings and managed land, typical of the existing developed land within the industrial area.	
<div>   </div>	
<div> <div>Photo ID: 3</div> <div>Photo ID: 4</div> </div>	

<b>Vegetation Area 3</b>	<b>Classification Applied or Exclusion Clause:</b> Excluded AS3959-2018 2.2.3.2 (e)&(f)
--------------------------	---

**Vegetation Type Present:** Non-vegetated Areas & Low Threat Vegetation

**Description / Classification Justification:** Sheds, cleared storage areas, driveways and access tracks, dwelling and out-buildings within managed land. Existing developed land in the central portion of Lot 301.



Photo ID: 5



Photo ID: 6

<b>Vegetation Area 4</b>	<b>Classification Applied or Exclusion Clause:</b> Class G Grassland
--------------------------	--

**Vegetation Type Present:** Closed tussock grassland G-21

**Description / Classification Justification:** Cropping land (curing crop) classified as grassland. Currently harvested cropping land with stubble less than 100mm in height and areas pending harvesting. Assumed for the purposes of assessment that this will remain as cropping land. Stock grazing occurring in stubble areas.



Photo ID: 7



Photo ID: 8



<b>Vegetation Area 4</b>	<b>Classification Applied or Exclusion Clause:</b> Class G Grassland
--------------------------	--

**Vegetation Type Present:** Closed tussock grassland G-21

**Description / Classification Justification:** Cropping land (curing crop) classified as grassland. Currently harvested cropping land with stubble less than 100mm in height and areas pending harvesting. Assumed for the purposes of assessment that this will remain as cropping land. Stock grazing occurring in stubble areas.



Photo ID: 9



Photo ID: 10

<b>Vegetation Area 4</b>	<b>Classification Applied or Exclusion Clause:</b> Class G Grassland
--------------------------	--

**Vegetation Type Present:** Closed tussock grassland G-21

**Description / Classification Justification:** Cropping land (curing crop) classified as grassland. Currently harvested cropping land with stubble less than 100mm in height. Assumed for the purposes of assessment that this will remain as cropping land. Stock grazing occurring in stubble areas.



Photo ID: 11

Photo ID: -

<b>Vegetation Area 5 &amp; 6</b>	<b>Classification Applied or Exclusion Clause:</b> Class B Woodland; Class D Scrub
----------------------------------	--

**Vegetation Type Present:** Woodland B-05; Open scrub D-14

**Description / Classification Justification:** (Background of photo 12) Eucalypt canopy trees over shrubland and low sparse hummock grasses. Tree height ~12.0m to ~20.0m, foliage cover ~30%. Scrub dominant area comprising tall and low mixed species including Grevillea and Melaleuca, with hummock grass understorey. Scrub height ~2m to 2.5m (reference star picket/ring-lock fence height ~1.1m). Pockets of low shrubland and degraded areas devoid of vegetation.



Photo ID: 12



Photo ID: 13

<b>Vegetation Area 6</b>	<b>Classification Applied or Exclusion Clause:</b> Class D Scrub
--------------------------	--

**Vegetation Type Present:** Open scrub D-14

**Description / Classification Justification:** Scrub dominant area comprising tall and low mixed species including Grevillea and Melaleuca, with hummock grass understorey. Scrub height ~2m to 2.5m (reference star picket/ring-lock fence height ~1.1m). Pockets of low shrubland and degraded areas devoid of vegetation.



Photo ID: 14



Photo ID: 15



<b>Vegetation Area 6 &amp; 7</b>	<b>Classification Applied or Exclusion Clause:</b> Class B Woodland ; Class E Mallee
----------------------------------	--

**Vegetation Type Present:** Woodland B-05; Tall shrubland E-15

**Description / Classification Justification:** (Photo 16 & background of photo 17) Eucalypt canopy trees over shrubland and low sparse hummock grasses. Tree height ~12.0m to ~20.0m, foliage cover ~30%. Low trees (multi-stemmed) and tall shrubs with hummock grass understorey (Typical of the Wheatbelt area). Pockets of degraded areas devoid of vegetation.



Photo ID: 16



Photo ID: 17

<b>Vegetation Area 7</b>	<b>Classification Applied or Exclusion Clause:</b> Class D Scrub; Class E Mallee
--------------------------	--

**Vegetation Type Present:** Open scrub D-14; Tall shrubland E-15

**Description / Classification Justification:** Scrub dominant area comprising tall and low mixed species including Grevillea and Melaleuca, with hummock grass understorey. Scrub height ~2m to 2.5m. Low trees ~3.6m in height (multi-stemmed) and tall shrubs with hummock grass understorey (Typical of the Wheatbelt area). ~30% foliage cover. Pockets of degraded areas devoid of vegetation.



Photo ID: 18



Photo ID: 19

**Vegetation Area 7 & 8** **Classification Applied or Exclusion Clause:** Class D Scrub; Class G Grassland

**Vegetation Type Present:** Open scrub D-14; Closed tussock grassland G-21

**Description / Classification Justification:** Scrub dominant area comprising tall and low mixed species including Grevillea and Melaleuca, with hummock grass understorey. Scrub height ~2m to 2.5m and ~30% foliage cover. (Reference star picket/ring-lock fence height ~1.1m). Grassland area comprises <10% tree canopy.



Photo ID: 20



Photo ID: 21

**Vegetation Area 8 & 9** **Classification Applied or Exclusion Clause:** Class G Grassland; Class D Scrub

**Vegetation Type Present:** Closed tussock grassland G-21; Open scrub D-14

**Description / Classification Justification:** Grassland area comprises <10% tree canopy. Scrub area comprising tall and low mixed species including Grevillea and Melaleuca, with hummock grass understorey. Scrub height ~2m to 2.5m and ~30% foliage cover. (Reference star picket/ring-lock fence height ~1.1m).



Photo ID: 22



Photo ID: 23



<b>Vegetation Area 9</b>	<b>Classification Applied or Exclusion Clause:</b> Class G Grassland; Class D Scrub
--------------------------	---

**Vegetation Type Present:** Closed tussock grassland G-21

**Description / Classification Justification:** Grassland area comprises <10% tree canopy. Scrub area comprising tall and low mixed species including Grevillea and Melaleuca, with hummock grass understorey. Scrub height ~2m to 3m and ~30% foliage cover. (Reference star picket/ring-lock fence height ~1.1m). Grassland is generally adjacent the roads and rail-line easements.



Photo ID: 24



Photo ID: 25

<b>Vegetation Area 9</b>	<b>Classification Applied or Exclusion Clause:</b> Class G Grassland; Class D Scrub
--------------------------	---

**Vegetation Type Present:** Closed tussock grassland G-21; Open scrub D-14

**Description / Classification Justification:** Grassland area comprises <10% tree canopy. Scrub area comprising tall and low mixed species including Grevillea and Melaleuca, with tussock grass understorey. Scrub height ~2m to 3m and ~30% foliage cover. (Reference star picket/ring-lock fence height ~1.1m). Grassland is generally adjacent the roads and rail-line easements.



Photo ID: 26



Photo ID: 27

<b>Vegetation Area 9</b>	<b>Classification Applied or Exclusion Clause:</b> Class B Woodland ; Class D Scrub
--------------------------	---

**Vegetation Type Present:** Woodland B-05; Open scrub D-14

**Description / Classification Justification:** Eucalypt canopy trees over shrubland and low sparse hummock grasses. Tree height ~12.0m to ~20.0m, foliage cover ~30%. Scrub dominant area comprising tall and low mixed species including Grevillea and Melaleuca, with hummock & tussock grass understorey. Scrub height ~2m to 2.5m and ~30% foliage cover.



Photo ID: 28



Photo ID: 29

<b>Vegetation Area 9</b>	<b>Classification Applied or Exclusion Clause:</b> Class D Scrub
--------------------------	--

**Vegetation Type Present:** Open scrub D-14

**Description / Classification Justification:** Scrub area comprising tall and low mixed species including Grevillea and Melaleuca, with hummock & tussock grass understorey. Scrub height ~2m to 3m and ~30% foliage cover.



Photo ID: 30



Photo ID: 31

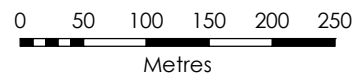




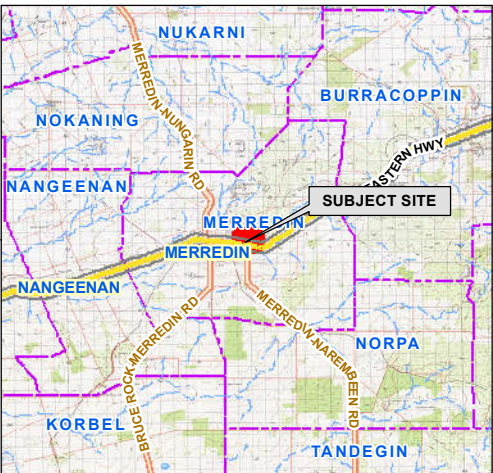
Figure 2.1  
**Topography &  
Classified Vegetation**

Lot 301 on Plan 64537 and  
Lot 525 on Plan 67327  
Adamson Road  
MERREDIN 6415  
**SHIRE OF MERREDIN**

- **LEGEND** -----
- Photo & Direction
  - Hydrant
  - Proposed Subdivision
  - Existing Building**
    - Class 1(a)
    - Class 10(a)
  - Vegetation Assessment Area**
    - 150m from Site Boundary
  - Classified Vegetation**
    - Class (B) Woodland
    - Class (C) Shrubland
    - Class (D) Scrub
    - Class (E) Mallee/Mulga
    - Class (G) Grassland
    - Exclusion 2.2.3.2



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



Aerial Imagery : Landgate/SLIP  
Image Date : Aug 2019

Coordinate System: GDA 1994 MGA Zone 50  
Projection: Universal Transverse Mercator Units: Metre  
Map compiled by: Ian Ross 23/01/2020  
Map updated by: Ian Ross 23/01/2020



## 3.2 Assessment Output

### Understanding the Bushfire Assessment Results - Application of Bushfire Attack Levels (BAL)

The BAL rating has a different application in the building environment compared to the planning environment and the BAL assessment can result in a determined BAL or an indicative BAL which have different implications.

#### Building versus Planning Applications

In the building environment, a determined BAL rating is required (for the proposed construction) at the building application stage. This is to inform approval considerations and establish the construction standards that are to apply if approved. An indicative BAL rating is not acceptable for a building application.

In the planning environment, assessing the ability of a proposed development site to achieve BAL-29 or less is the objective (as one of the bushfire protection criteria being assessed). The 'development site' is defined by the LPS Amendment Regulations 2015 as "that part of a lot on which a building that is the subject of development stands or is to be constructed".

Therefore, being able to show that a BAL rating of BAL-29 or lower is achievable for a proposed development site (i.e. the building footprint) is an acceptable outcome for that criteria, as established by the bushfire provisions, SPP 3.7 and the associated Guidelines. For planning purposes, this BAL rating could be either indicative or determined.

#### Determined BAL Ratings

A determined BAL rating is to apply to an existing or proposed construction site (building) and not to a lot or envelope. Its purpose is to state the potential radiant heat flux to which the building will be exposed.

A determined BAL cannot be given for a future building whose location, elevation design and footprint (on a given lot) are unknown. It is not until these variables have been fixed that a BAL can be determined (typically at the development application or building application stage).

The one exception is when a building of **any dimension** can be **positioned anywhere** on a proposed lot or within defined limits within the lot (i.e. building setbacks or building envelope) and always remain subject to the same BAL rating. For this to be the case, there needs to be no classified vegetation either onsite or offsite that if retained could impact upon the determined BAL rating.

#### Indicative BAL Ratings

When this Plan presents a single indicative BAL rating for a proposed construction site (building), this will be because the construction is still subject to a location within the lot being confirmed and/or a vegetation separation distance being achieved. That is, it will be conditional upon some factor being confirmed at a later stage.

For planning applications associated with proposed lots, the building location, elevation design and footprint have typically not been established. Therefore, indicative rather than determined BAL rating/s will be presented for each lot (with the exception as noted above under 'Determined BAL Ratings').

When this Plan presents a single indicative BAL rating for a lot or building envelope (i.e. an 'area' that is not a located building footprint) it will represent the highest BAL rating affecting that 'area'. The BAL rating of a future building on that 'area' will be dependent on its eventual location.

Otherwise, this Plan will present all BAL ratings for each lot and for each BAL rating, the vegetation separation distances from each area of classified vegetation that are to apply. These distances will be presented as either figures in a table or as a BAL contour map.

From this indicative BAL information, it can be assessed if acceptable BAL ratings ( $\leq$  BAL-29) can be achieved for future buildings.



### 3.2.1 Bushfire Attack Level (BAL) Results Presented as a BAL Contour Map

#### Interpretation of the Bushfire Attack Level (BAL) Contour Map

The contour map will present different coloured contour intervals constructed around the classified bushfire prone vegetation. These represent the different Bushfire Attack Levels that exist at varying distances away from the classified vegetation. Each BAL represents a set range of radiant heat flux (as defined by AS 3959-2018) that can be generated by the bushfire in that vegetation at that location.

The width of each shaded contour (i.e. the distance interval) will vary and is determined by consideration of variables including vegetation type, fuel structure, ground slope, climatic conditions. They are unique to a site and can vary across a site. The width of each contour is a diagrammatic expression of the separation distances from the classified vegetation that apply for each BAL rating, for that site. A building (or 'area') located within any given BAL contour will be subject to that BAL rating and potentially multiple BAL ratings of which the highest rating will be applied.

### 3.2.2 Separation Distances Calculated to Construct the BAL Contours

Table 3.2.2: Vegetation separation distances applied to construct the BAL contours.

CALCULATED VEGETATION SEPARATION DISTANCES										
Vegetation Area	Vegetation Classification	Effective Slope	Site Slope (Degrees)	BAL Assessment Method Applied <sup>1</sup>	BAL Rating and Corresponding Separation Distance <sup>2</sup> (metres)					
					BAL-FZ	BAL-40	BAL-29	BAL-19	BAL12.5	BAL-LOW
1	Excluded AS3959-2018 2.2.3.2 (e)(f)	-	-	Method 1	N/A	N/A	N/A	N/A	N/A	N/A
2	Excluded AS3959-2018 2.2.3.2 (e)(f)	-	-	Method 1	N/A	N/A	N/A	N/A	N/A	N/A
3	Excluded AS3959-2018 2.2.3.2 (e)(f)	-	-	Method 1	N/A	N/A	N/A	N/A	N/A	N/A
4	Class G Grassland	U/S	0	Method 1	<6	6-<8	8-<12	12-<17	17-<50	>50
5	Class B Woodland	U/S	0	Method 1	<10	10-<14	14-<20	20-<29	29-<100	>100
6	Class D Scrub	U/S	0	Method 1	<10	10-<13	13-<19	19-<27	27-<100	>100
7	Class D Scrub	U/S	0	Method 1	<10	10-<13	13-<19	19-<27	27-<100	>100
8	Class G Grassland	U/S	0	Method 1	<6	6-<8	8-<12	12-<17	17-<50	>50

9	Class D Scrub	U/S	0	Method 1	<10	10-<13	13-<19	19-<27	27-<100	>100
9	Class D Scrub	D/S	1.0	Method 1	<11	11-<15	15-<22	22-<31	31-<100	>100

<sup>1</sup> Method 1 as per AS 3959-2018 Table 2.5 and Method 2 as per AS 3959-2018 Appendix B. The input variables applied, other than the calculation model defaults, are presented in Section 3.1 of this Plan.

<sup>2</sup> Copies of the summaries of Method 2 calculation inputs and outputs are presented in the Appendices if applicable.

D/S = Downslope U/S = Upslope C/S = Cross Slope

Note: Area 1 (Subject Site) is excludable for the purposes of the BAL Contour map due to clearing and vegetation modification to achieve a low threat standard across the site, by the landowner/proponent as part of the subdivision works. Site specific BAL assessment may be required at the future building stage to confirm or determine the BAL rating dependent upon site conditions at that time.

### 3.2.3 Bushfire Attack Level (BAL) Results Presented as a Table

Table 3.2.1: Determination of BAL ratings for proposed Lots (Indicative).

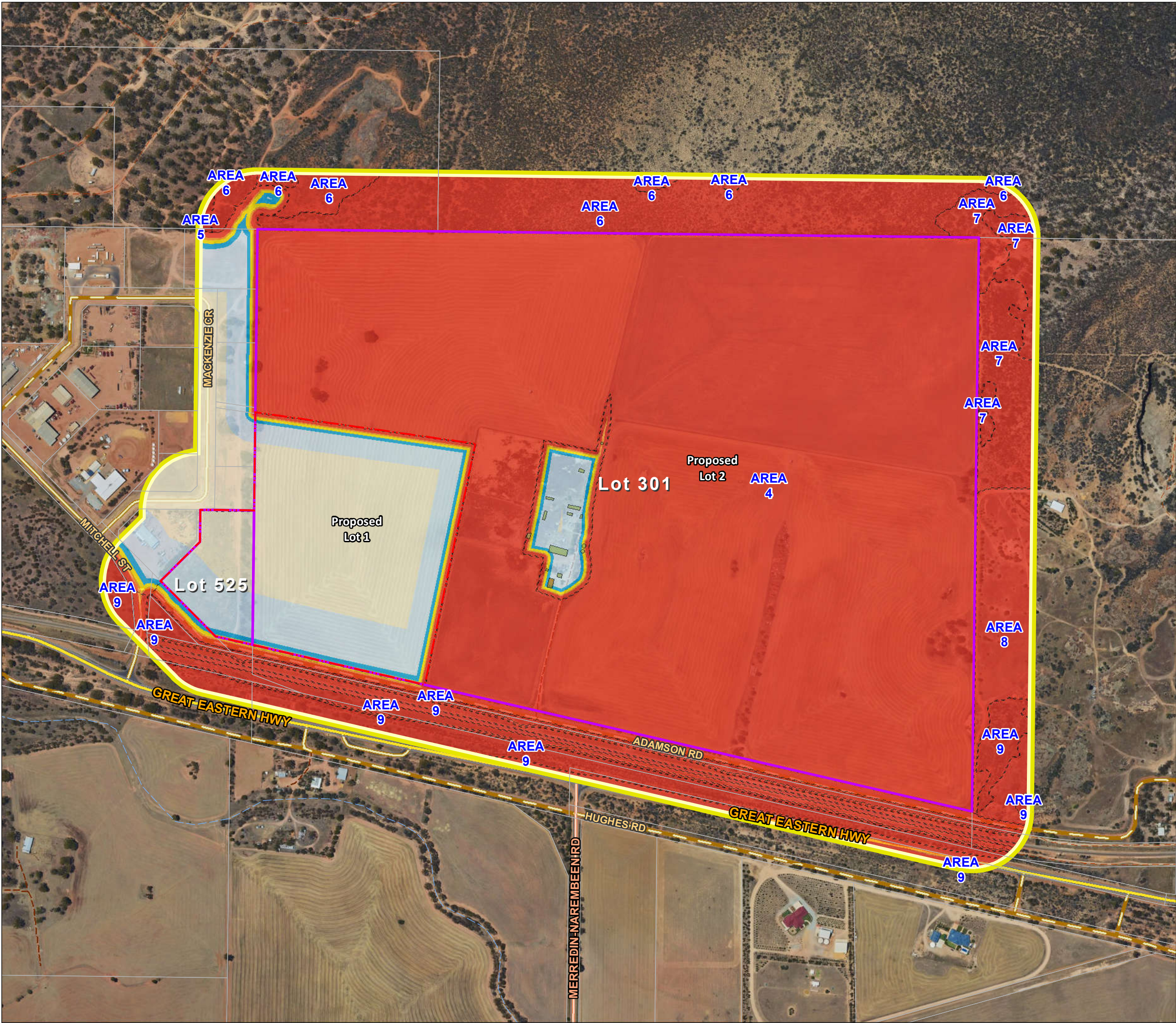
INDICATIVE ACHIEVABLE BUSHFIRE ATTACK LEVEL FOR FUTURE BUILDINGS ON PROPOSED LOTS	
Relevant Fire Danger Index (AS 3959-2018 Table 2.1)	80
BAL Determination Method	Method 1 as per AS 3959-2018 s2.2.6 and Table 2.5
Lot No.	Indicative Achievable BAL Rating Range within Lot
301	BAL-12.5 to BAL-29
525 (Amalgamated Lot 1)	BAL-LOW to BAL-29

Existing buildings on Lot 301 are located in an area within the Lot that achieves BAL-19 for the habitable dwelling and BAL-19 to BAL-12.5 for the majority of the Sheds and out-buildings.

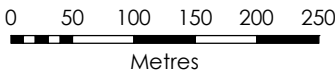


Figure 2.2  
**BAL Contour Map**

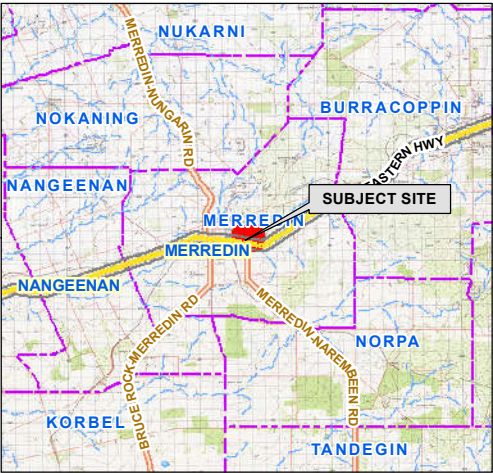
Lot 301 on Plan 64537 and  
Lot 525 on Plan 67327  
Adamson Road  
MERREDIN 6415  
**SHIRE OF MERREDIN**



- **LEGEND** -----
- Subject Site
  - Other Lots
  - Proposed Subdivision
  - Existing Building**
    - Class 1 (a)
    - Class 10(a)
  - Vegetation Assessment Area**
    - 100m from Site Boundary
    - Classified Vegetation Boundary
  - Indicative Bushfire Attack Levels**
    - BAL FZ
    - BAL 40
    - BAL 29
    - BAL 19
    - BAL 12.5
    - BAL LOW



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



Aerial Imagery : Landgate/SLIP  
Image Date : Aug 2019



Coordinate System: GDA 1994 MGA Zone 50  
Projection: Universal Transverse Mercator Units: Metre  
Map compiled by: Ian Ross 23/01/2020  
Map updated by: Ian Ross 23/01/2020

**Disclaimer and Limitation:** This map has been prepared for bushfire management planning purposes only. All depicted areas, contours and any dimensions shown are subject to survey. Bushfire Prone Planning does not guarantee that this map is without flaw of any kind and disclaims all liability for any errors, loss or other consequence arising from relying on any information depicted.  
Map Document Path / Name: K:\Projects\Jobs 2019\190760 - Lot 525 and Lot 301 Adamson Road Merredin (BMP)\Mapping\MXD\190760\_BAL\_Lots 525 301 Adamson Road Merredin BMP.mxd



### 3.2.4 Bushfire Attack Levels (BAL) Derived from the Contour Map

#### Deriving a BAL Rating for a Future Construction Site (Building) from the BAL Contour Map Data

##### (Capacity to Issue a BAL Certificate)

**Key Assumptions:** The actual location of a building within a lot or envelope (an 'area') may not have been determined at this stage of planning; and the BAL ratings represent the BAL of an 'area' not a building.

##### The BAL Rating is Assessed as Indicative

If the assessed BAL for the 'area' is stated as being 'indicative', it is because that 'area' is impacted by more than one BAL contour interval and/or classifiable vegetation remains on the lot, or on adjacent lots, that can influence a future building's BAL rating (and this vegetation may have been omitted from being contoured for planning purposes e.g. Grassland or when the assumption is made that all onsite vegetation can be removed and/or modified).

In this report the indicative BAL is presented as either the highest BAL impacting the site or as a range of achievable BAL's within the site – whichever is the most appropriate.

The BAL rating that will apply to any future building within that 'area' will be dependent on:

1. vegetation management onsite; and/or
2. vegetation remaining on adjacent lots; and/or
3. the actual location of the future building within that 'area'.

A BAL Certificate cannot be provided for future buildings, within a lot or envelope with an indicative BAL, until the building location and in some instances building design (elevation), have been established and any required and approved vegetation modification/removal has been confirmed. Once this has occurred a report confirming the building location and BAL rating will be required to submit with the BAL certificate.

The required confirmation of the BAL rating must be done by a bushfire practitioner with the same level of accreditation as has been required to compile this Bushfire Management Plan. This is dependent on the type of calculations utilised (e.g. if performance-based solutions have been used in the Plan BPAD Level 3 accreditation is required)

##### The BAL Rating is Assessed as Determined

If the assessed BAL for the lot or envelope is stated as being 'determined' it is because that lot or envelope is impacted by a single BAL contour interval. This BAL has been determined by the existence (or non-existence) of classified vegetation outside the lot or envelope, and no classifiable vegetation currently exists on the lot or envelope (i.e. it has been cleared to a minimal fuel, low bushfire threat state). In the situation where the BAL Contour Map has been constructed around multiple lots, there also needs to be no classifiable vegetation on an adjacent lot if this vegetation has not already been incorporated into the creation of the BAL Contour Map.

As a result, a determined BAL can be provided in this limited situation because:

1. No classified vegetation is required to be removed or modified to achieve the determined BAL, either within the lot/envelope or on adjacent lots (or if vegetation is excluded from classification, it is reasonable to assume it will be maintained in this state into the future); and
2. A future building can be located anywhere within the 'site' and be subject to the determined BAL rating; and
3. The degree of certainty is more than sufficient to allow for any small discrepancy that might occur in the mapping of the BAL contours.

For a determined BAL rating for a lot/envelope, A BAL Certificate (referring to this BMP) can be provided for a future building, if the BMP remains current.



## 4 Identification of Bushfire Hazard Issues

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The key factor to facilitate the determining of Indicative Bushfire Attack Levels for the proposed Lots is that vegetation onsite is under the control of the landowner/s. Vegetation onsite therefore can be removed or modified to lower the bushfire risk and therefore presents a low bushfire threat.

Areas of vegetation offsite that form part of native vegetation along road reserves, Crown Land to the west and large areas of Reserves to the north, cannot be removed or modified and as a result the assessed BAL's determined by the proximity of this vegetation are unable to be further reduced. These areas external to the site but not part of the future development have been factored for the BAL Contour mapping.

The BAL Contour Map, Figure 2.2, indicates post development bushfire attack levels for the planning proposal (subdivision and amalgamation of Lots) based on the assumptions above and the implementation of asset protection zones with the Lots around future buildings, will achieve as a minimum a BAL-29, meeting the planning requirement for building construction.

## 5 Assessment Against the Bushfire Protection Criteria (BPC)

### 5.1 Bushfire Protection Criteria - Assessment Summary

Summarised Outcome of the Assessment Against the Bushfire Protection Criteria (BPC)				
Element	Basis for the Assessment of Achieving the Intent of the Element			
	Achieves compliance with the Element through meeting Acceptable Solutions		Achieves compliance with the Element by application of a Performance Based Solution	Minor or Unavoidable Development
	Meets all relevant acceptable solutions	One or more relevant Acceptable Solutions are not <u>fully</u> met. A <u>variation</u> of the solution is provided and justified.	One or more applicable Acceptable Solutions are not met. A solution is developed with the summary presented in this Plan in Section 5.5. The supporting document presenting Bushfire Prone Planning's detailed methodology is submitted separately to the decision makers.	The required supporting statements are presented in this Plan.
Location	✓			N/A
Siting and Design of Development	✓			
Vehicular Access	✓			
Water	✓			

The subject site has been assessed against:

1. The requirements established in Appendix 4 of the Guidelines for Planning in Bushfire Prone Areas, WAPC 2017 v1.3 (the 'Guidelines'). The detail, including technical construction requirements, are found at <https://www.dplh.wa.gov.au/8194.aspx>. A summary of relevant information is provided in the appendices of this Plan; and
2. Any endorsed variations to the Guideline's acceptable solutions and associated technical requirements that have been established by the relevant local government. If known and applicable these have been stated in Section 5.2 of this Plan with the detail included as an appendix if required by the relevant local government.

## 5.2 Bushfire Protection Criteria – Acceptable Solutions Assessment Detail

### 5.2.1 Element 1: Location

<b>Bushfire Protection Criteria Element 1: Location</b> Assessment Statements and Bushfire Protection Measures to be Applied			
<b>Intent:</b> To ensure that strategic planning proposals, subdivision and development applications are located in areas with the least possible risk of bushfire to facilitate the protection of people, property and infrastructure.			
Acceptable Solution:	A1.1: Development Location	Method of achieving Element compliance and/or the Intent of the Element:	The acceptable solution is fully met.

The subject site can achieve compliance by:

- By ensuring future building work on each proposed Lot can be located on an area that will be subject to potential radiant heat from a bushfire not exceeding 29 kW/m<sup>2</sup> (i.e. a BAL rating of BAL-29 or less will apply – refer Figure 3.2: BAL Contour Map). This can be achieved by using positioning, design and appropriate on-site vegetation management;
- Identifying that the immediate surrounding area exhibits a reasonable level of ongoing fuel load maintenance levels, through small Lot size, being located in industrial zoned area; and
- Managing the remaining bushfire risk to an acceptable level by the existence/implementation and ongoing maintenance of all required bushfire protection measure. These measures include the requirements for vegetation management, vehicular access and fire-fighting water supply.

## 5.2.2 Element 2: Siting and Design of Development

<b>Bushfire Protection Criteria Element 2: Siting and Design of Development</b> Assessment Statements and Bushfire Protection Measures to be Applied			
<b>Intent:</b> To ensure that the siting and design of development (note: not building/construction design) minimises the level of bushfire impact.			
Acceptable Solution:	A2.1: Asset Protection Zone	Method of achieving Element compliance and/or the Intent of the Element:	The acceptable solution is fully met.

The subject site achieves compliance by:

- Ensuring future building work on each Lot can have established around it an APZ of the required dimensions - to ensure that the potential radiant heat from a bushfire to impact future building/s, does not exceed 29 kW/m<sup>2</sup> (i.e. a BAL rating of BAL-29 or less will apply to determine building construction standards for those buildings required to comply with AS3959-2018 dependent upon 'Class' of building);
- The APZ/s can be established within the Lot boundaries where it can be reasonably expected that the amalgamated Lot will be maintained in a low threat state, in perpetuity;
- The landowner/s having the responsibility of continuing to manage the required APZ as low threat vegetation in a minimal fuel state, by maintaining the APZ to the required dimensions and standard, including compliance with the local government's annual firebreak notice for APZ construction and management of land outside of the APZ, within each Lot (Compliance with the BMP and Firebreak Notice).

The required APZ dimensions are set out in Section 5.3.1. The APZ technical requirements (Standards) are detailed in Appendix 1.



## 5.2.3 Element 3: Vehicular Access

### Bushfire Protection Criteria Element 3: Vehicular Access Assessment Statements and Bushfire Protection Measures to be Applied

**Intent:** To ensure that the vehicular access serving a subdivision/development is available and safe during a bushfire event.

Acceptable Solution:	A3.1: Two access routes	Method of achieving Element compliance and/or the Intent of the Element:	The acceptable solution is fully met.
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The subject site is located at the intersection with Adamson Road and Mitchell Street, which provides safe access and egress to two different destinations via local road networks. Access to Great Eastern Highway is approximately 148m from this intersection point. As sealed public roads, these are available to all residents and the public at all times and under all weather conditions.

The construction technical requirements established by the Guidelines and/or the local government can and will be complied with.

Acceptable Solution:	A3.2 Public Road	Method of achieving Element compliance and/or the Intent of the Element:	The intent of the element is achieved.
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Adamson Road is currently an existing unsealed no-through road, however the new amalgamated Lot is located at the intersection with Mitchell Road, which is an existing constructed road that meets the Shire of Merredin standards and specifications for public roads. The intent of the Element is met due to the Lots close proximity to this intersection point, which is unobstructed and enables vehicles to exit in multiple directions to a safer location in the event of a bushfire incident.

The construction technical requirements established by the Guidelines and/or the local government can and will be complied with.

Acceptable Solution:	A3.3 Cul-de-sacs (including a dead-end road)	Method of achieving Element compliance and/or the Intent of the Element:	The intent of the element is achieved.
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No new roads are being constructed as part of this subdivision and amalgamation proposal. Adamson road is an existing legacy issue. The road services a small number of Rural farm Lots with current access for large vehicles and agricultural equipment is able.

Exiting Lot 525 has frontage to the seal section of Adamson Road, with provision for turn-around within the intersection.

The construction technical requirements established by the Guidelines and/or the local government can and will be complied with.

Acceptable Solution:	A3.4: Battle-axe	Method of achieving Element compliance and/or the Intent of the Element:	N/A
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N/A

**Bushfire Protection Criteria Element 3: Vehicular Access** (continued)  
Assessment Statements and Bushfire Protection Measures to be Applied

Acceptable Solution:	A3.5: Private Driveways	Method of achieving Element compliance and/or the Intent of the Element:	The acceptable solution will be fully met in the future (building construction stage).
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Future development on the amalgamated Lot will require increased construction standards for driveways for any future buildings being greater than 50m from the public road, including provision for turn-around areas and passing bays where required, as specified in the Guidelines. Lot area is able to facilitate building setbacks greater than 50m from the public road and cater for driveway standards if appropriate.

The construction technical requirements established by the Guidelines and/or the local government can and will be complied with.

Acceptable Solution:	A3.6 Emergency Access Way	Method of achieving Element compliance and/or the Intent of the Element:	N/A
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N/A

Acceptable Solution:	A3.7 Fire Service Access Routes	Method of achieving Element compliance and/or the Intent of the Element:	N/A
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N/A

Acceptable Solution:	A3.8 Firebreak Width	Method of achieving Element compliance and/or the Intent of the Element:	The acceptable solution can be fully met in the future (at the subdivision construction stage).
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The subject site will comply with the requirements of the local government annual firebreak notice issued under s33 of the Bush Fires Act 1954. Firebreaks and hazard reduction, as necessary, will be installed/maintained annually and in perpetuity. Each Lot will comply with the Shire of Merredin Firebreak Notice (Firebreak Order) as part of the subdivision works by the developer and maintained by the landowner/s.

The construction technical requirements established by the Guidelines and/or the local government can and will be complied with.



## 5.2.4 Element 4: Water

### Bushfire Protection Criteria Element 4: Water

Assessment Statements and Bushfire Protection Measures to be Applied

**Intent:** To ensure water is available to the subdivision, development or land use to enable people, property and infrastructure to be defended from bushfire.

Acceptable Solution:	A4.1 Reticulated Areas	Method of achieving Element compliance and/or the Intent of the Element:	The acceptable solution is fully met.
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A reticulated water supply is available to the subject site and hydrants are located at the required regular intervals. Existing hydrants are located on McKenzie Crescent.

(State required hydrant separation distances – 100m commercial, 200m residential, 400m rural residential >1ha).

The construction technical requirements established by the Guidelines and/or the local government can and will be complied with.

Acceptable Solution:	A4.2 Non-Reticulated Areas	Method of achieving Element compliance and/or the Intent of the Element:	N/A
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N/A

Acceptable Solution:	A4.3 Non-reticulated Areas (Individual Lots)	Method of achieving Element compliance and/or the Intent of the Element:	N/A
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N/A

## 5.3 Additional Information for Required Bushfire Protection Measures

The subject site will be required to be maintained in accordance with the Shire of Merredin Firebreak Order 'Firebreak Notice'. Note: This Notice may be subject to change in the future.

### 5.3.1 Vegetation Management

The type of the vegetation (grassland/crops) on the proposed new Lot is able to be managed in a low threat state. Vegetation management outside of asset protection zones (to achieve the indicated BAL rating) other than that described in the Shire of Merredin Firebreak Order 'Firebreak Notice' will be undertaken by the landowner to ensure a bushfire hazard is not created. The minimum dimensions (vegetation separation distances) that are to apply to the APZ for this Proposal (for new buildings) are presented in the table below.

#### Asset Protection Zone (APZ) Dimensions that are to Apply

The required dimensions of the APZ will vary dependent upon the purpose for which the APZ has been defined. There are effectively three APZ dimensions that can apply:

1. An application for planning approval will be required to show that an APZ can be created which is of sufficient size to ensure the potential radiant heat impact of a fire does not exceed 29kW/m<sup>2</sup> (BAL-29); and
2. If the assessment has determined a BAL rating for an existing or future building is less than BAL-29, the APZ must be of sufficient size to ensure the potential radiant heat impact of a fire does not exceed the kW/m<sup>2</sup> corresponding to the lower assessed BAL rating; or
3. Complying with the relevant local government's annual firebreak notice may require an APZ of greater size than that defined by the two previous parameters.

#### The 'Planning (WAPC) BAL-29' APZ

Minimum Required Dimensions for the Subject Site

Requirement Set By		Guidelines for Planning in Bushfire Prone Areas (WAPC 2017 v1.3)		
Relevant Fire Danger Index (AS3959-2018 Table 2.1)		80		
BAL Determination Method		Method 1 (as per AS 3959-2018 s2.2.6 and Table 2.5)		
Vegetation Area	Applied Vegetation Classification	Effective Slope (degrees)	Acceptable 'Planning' BAL	Required Separation Distance (metres)
4	Class G Grassland	0	BAL-29	8
9	Class D Scrub	1.0		15
This requirement has been established through the State bushfire provisions, SPP 3.7 and the associated Guidelines, as being a key compliance requirement for development proposals in WA.				



### 'Local Government Firebreak Notice'

Required Minimum Requirements for the Subject Site

Requirement Set By:	Local Government (Shire of Merredin)
Minimum Standard:	<p><b>Townsite Land with a building on it:</b></p> <p>Where the area of land is two thousand (2, 000) square metres or less the land shall be cleared of all flammable materials; Where the area of land exceeds two thousand (2,000) square metres, install a 3 metre wide firebreak immediately inside the external boundaries of the land;</p> <p>Maintain all grass on the land to a height no greater 5cm (50mm); Prune trees and shrubs and remove dead flammable material within 6 metres of all buildings on the land; and Ensure the roofs, gutters and walls of all buildings on the land are free of flammable matter.</p> <p><b>Vacant Townsite Land:</b></p> <p>Where the area of land is two thousand (2,000) metres square or less maintain all grass and flammable matter on the land to a height no greater than 5cm (50mm);</p> <p>Where the land exceeds two thousand (2,000) metres square install a 3 metre wide firebreak immediately inside all external boundaries of the land by removing all flammable matter within that 3 metre wide fire break to a height of 4 metres.</p> <p><b>Rural Land:</b></p> <p>Install firebreaks to a width of three metres immediately inside and along all external boundaries of the land; Install firebreaks to a width of twenty metres around all buildings, haysheds and fuel storage areas on the land; Where the land is greater than 400 hectares in area, install sufficient internal 3 metre wide firebreaks so as to divide the land into areas of 400 hectares or less which are bounded by a 3 metre wide firebreak.</p> <p><b>Fuel Dumps and Depots:</b></p> <p>Remove all inflammable matter within 10 metres of where fuel drums, fuel ramps or fuel dumps are located and where fuel drums, whether containing fuel or not, are stored.</p>

This requirement has been established through the stated local government's annual fire break notice issued under the Bush Fires Act 1954 s33.

## 6 Responsibilities for Implementation and Management of the Bushfire Protection Measures

Table 6.1: Implementation responsibilities prior to the issue of titles for the Developer.

<b>DEVELOPER - PRIOR TO ISSUE OF CERTIFICATE OF TITLES FOR NEW LOTS</b>			
No.	Implementation Actions	Local Government Clearance	Bushfire Consultant Clearance
1	<p>Planning approval may be conditioned with the requirement to make appropriate notifications (on the certificates of title and the deposited plan), of the existence of this document.</p> <p>The WAPC may condition a subdivision application approval with a requirement for the landowner / proponent to place a notification onto the certificate(s) of title and a notice of the notification onto the diagram or plan of survey (deposited plan). This will be done pursuant to Section 165 of the Planning and Development Act 2005 ('Hazard etc. affecting land, notating titles as to:') and applies to lots with a determined BAL rating of BAL-12.5 or above. The notification will be required to state:</p> <p><i>'This land is within a bushfire prone area as designated by an Order made by the Fire and Emergency Services Commissioner and may be subject to a Bushfire Management Plan. Additional planning and building requirements may apply to development on this land'.</i></p>	□	-



Table 6.2: Implementation responsibilities prior to lot sale, occupancy or building for the Landowner/Developer.

LANDOWNER/DEVELOPER - PRIOR TO LOT SALE, OCCUPANCY OR BUILDING	
No.	Implementation Actions
1	<p>The local government may condition a development application approval with a requirement for the landowner/proponent to register a notification onto the certificate of title (it may also need to be included on the deposited plan).</p> <p>This will be done pursuant to Section 70A Transfer of Land Act 1893 as amended ('Factors affecting use and enjoyment of land, notification on title:'). This is to give notice of the bushfire hazard and any restrictions and/or protective measures required to be maintained at the owner's cost.</p> <p>This condition ensures that:</p> <ol style="list-style-type: none"> <li>1. Landowners/proponents are aware their Lot is in a designated bushfire prone area and of their obligations to apply the stated bushfire risk management measures; and</li> <li>2. Potential purchasers are alerted to the Bushfire Management Plan so that future landowners/proponents can continue to apply the bushfire risk management measures that have been established in the Plan.</li> </ol>
2	<p>Prior to sale and post planning approval, the entity responsible for having the Plan prepared should ensure that anyone listed as having responsibility under the Plan has endorsed it and is provided with a copy for their information and informed that it contains their responsibilities. This includes the landowners/proponents (including future landowners where the Plan was prepared as part of a subdivision approval), local government and any other authorities or referral agencies ('Guidelines' s4.6.3).</p>
3	<p>Prior to sale of the subject Lot/s, each individual Lot is to be compliant with the local government's annual firebreak notice issued under s33 of the Bush Fires Act 1954.</p>
4	<p>Prior to any building work, inform the builder of the existence of this Plan and the responsibilities it contains, regarding the required construction standards. This will be:</p> <ul style="list-style-type: none"> <li>• The standard corresponding to the determined BAL rating, as per the bushfire provisions of the Building Code of Australia (BCA); and/or</li> <li>• A higher standard as a result of the BMP establishing that construction is required at a standard corresponding to a higher BAL rating.</li> </ul>
5	<p>The Landowner/Developer is responsible for ensuring all bushfire protection measures indicated in the bushfire management plan, or additionally conditioned as part of the subdivision proposal, are constructed or installed to the satisfaction of the Shire of Merredin.</p>

Note: The proposed amalgamated Lot is located outside of the current designated bushfire prone area mapping.

Table 6.3: Ongoing management responsibilities for the Landowner/Occupier.

<b>LANDOWNER/OCCUPIER - ONGOING</b>	
No.	Ongoing Management Actions
1	Maintain the Asset Protection Zone (APZ) to the dimensions and standard stated in the Plan.
2	Comply with the Shire of Merredin annual Firebreak Order 'Firebreak Notice' issued under s33 of the Bush Fires Act 1954.
3	Ensure that any builders (of future structures on the Lot) are aware of the existence of this Plan and the responsibilities it contains regarding the application of construction standards corresponding to a determined BAL rating.
4	<p>Ensure all future buildings the landowner has responsibility for, are designed and constructed in full compliance with:</p> <ol style="list-style-type: none"> <li>1. the requirements of the WA Building Act 2011 and the bushfire provisions of the Building Code of Australia (BCA); and</li> <li>2. with any identified additional requirements established by this BMP or the relevant local government.</li> </ol>

Table 6.4: Ongoing management responsibilities for the Local Government.

<b>LOCAL GOVERNMENT - ONGOING</b>	
No.	Ongoing Management Actions
1	Monitor landowner compliance with the annual Firebreak Order 'Firebreak Notice'.
2	Where control of an area of vegetated land is vested in the control of the local government and that area of land has influenced the assessed BAL rating/s of the subject site/s – and the BAL rating has been correctly assessed - there is an obligation to consider the impact of any changes to future vegetation management and/or revegetation plans with respect to that area.

## Appendix 1 - Onsite Vegetation Management Technical Requirements

It is the responsibility of the landowner to maintain the established bushfire protection measures on their property. Not complying with these responsibilities can result in buildings being subject to a greater potential impact from bushfire than that determined by the assessed BAL rating presented in this Bushfire Management Plan.

For the management of vegetation within a lot (i.e. onsite) the following technical requirements exist:

1. **The APZ:** Installing and maintaining an asset protection zone (APZ) of the required dimensions to the standard established by the Guidelines for Planning in Bushfire Prone Areas (WA Planning Commission, as amended). When, due to the planning stage of the proposal to which this Bushfire Management Plan applies, defined APZ dimensions are known and are to be applied to existing or future buildings – then these dimensions are stated in Section 5.4.1 of this Plan.
2. **The Firebreak/Fuel Load Notice:** Complying with the requirements established by the relevant local government's annual firebreak notice issued under s33 of the Bushfires Act 1954. Note: If an APZ requirement is included in the Notice, the standards and dimensions may differ from the Guideline's APZ Standard – the larger dimension must be complied with.
3. **Changes to Vegetated/Non-Vegetated Areas:**
  - a. If applicable to this Plan, the minimum separation distance from any classified vegetation, that corresponds to the determined BAL for a proposed building, must be maintained as either a non-vegetated area or as low threat vegetation managed to a minimal fuel condition as per AS 3959-2018 s2.2.3.2 (e) and (f). Refer to Part 4 of this Appendix 1.
  - b. Must not alter the composition of onsite areas of classified vegetation (as assessed and presented in Section 3.1.2) to the extent that would require their classification to be changed to a higher bushfire threat classification (as per AS 3959-2018); and
  - c. Must not allow areas within a lot (i.e. onsite) that have been:
    - i. excluded from classification by being low threat vegetation or non-vegetated; and
    - ii. form part of the assessed separation distance that is determining a BAL rating

...to become vegetated to the extent they no longer represent a low threat (refer to Part 4 of Appendix 1). Note: The vegetation classification exclusion specifications as established by AS 3959-2018 s2.2.3.2, are included at Appendix 4 below for reference.



## 1. Requirements Established by the Guidelines – the Asset Protection Zone (APZ) Standards

(Source: Guidelines for Planning in Bushfire Prone Areas - WAPC 2017 v1.3 Appendix 4, Element 2, Schedule 1 and Explanatory Note E2.1)

### Defining the Asset Protection Zone (APZ)

**Description:** An APZ is an area surrounding a building that is managed to reduce the bushfire hazard to an acceptable level (by reducing fuel loads). The width of the required APZ varies with slope and vegetation. For planning applications, the minimum sized acceptable APZ is that which is of sufficient size to ensure the potential radiant heat impact of a fire does not exceed 29kW/m<sup>2</sup> (BAL-29). It will be site specific.

The APZ may include public roads, waterways, footpaths, buildings, rocky outcrops, golf courses, maintained parkland as well as cultivated gardens in an urban context, but does not include grassland or vegetation on a neighbouring rural lot, farmland, wetland reserves and unmanaged public reserves.

For subdivision planning, design elements and excluded/low threat vegetation adjacent to the lot can be utilised to achieve the required vegetation separation distances and therefore reduce the required dimensions of the APZ within the lot.

**Defendable Space:** The APZ includes a defendable space which is an area adjoining the asset within which firefighting operations can be undertaken to defend the structure. Vegetation within the defendable space should be kept at an absolute minimum and the area should be free from combustible items and obstructions. The width of the defendable space is dependent on the space which is available on the property, but as a minimum should be 3 metres.

**Establishment:** The APZ should be contained solely within the boundaries of the lot on which the building is situated, except in instances where the neighbouring lot or lots will be managed in a low-fuel state on an ongoing basis, in perpetuity.

*Note: Regardless of whether an Asset Protection Zone exists in accordance with the acceptable solutions and is appropriately maintained, fire fighters are not obliged to protect an asset if they think the separation distance between the dwelling and vegetation that can be involved in a bushfire, is unsafe.*

## Schedule 1: Standards for APZ

**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 mm in thickness reduced to and maintained at an average of two tonnes per hectare (example below).

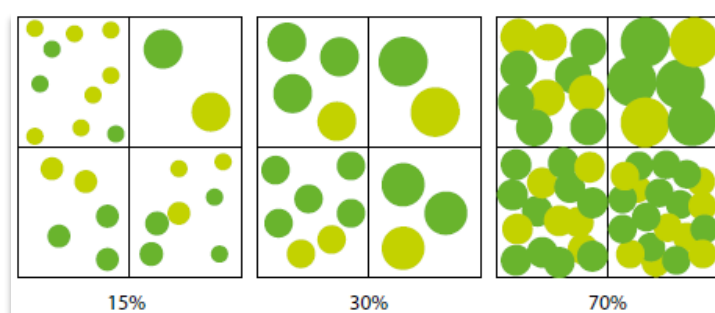
*Example Fine Fuel Load of Two Tonnes per Hectare*



(Image source: Shire of Augusta Margaret River's Firebreak and Fuel Reduction Hazard Notice)

**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. Diagram below represents tree canopy cover at maturity.

*Tree canopy cover – ranging from 15 to 70 per cent at maturity*



(Source: Guidelines for Planning in Bushfire Prone Areas 2017, Appendix 4)

**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 5m<sup>2</sup> 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 mm 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 mm or less.

The following example diagrams illustrate how the required dimensions of the APZ will be determined by the type and location of the vegetation.

Hazard on one side

APZ



Hazard on three sides

APZ



## 2. Requirements Established by the Local Government – the Firebreak Notice

These requirements are established by the relevant local government's Firebreak Notice created under s33 of the Bushfires Act 1954 and issued annually (potentially with revisions). The Notice may include additional components directed at managing fuel loads, accessibility and general property management with respect to limiting potential bushfire impact.

The relevant local government's current Firebreak Notice is available on their website, at their offices and is distributed as ratepayer's information. It must be complied with.

If Asset Protection Zone technical requirements are defined in the Notice, the standards and dimensions may differ from the Guideline's APZ Standards, with the intent to better satisfy local conditions. When these are more stringent than those created by the Guidelines, or less stringent and endorsed by the WAPC and DFES, they must be complied with.

When, due to the planning stage of the proposal to which this Bushfire Management Plan applies, defined APZ dimensions are known and are to be applied to existing or future buildings – then these dimensions are stated in Section 5.3.1 of this Plan.



### 3. Requirements Recommended by DFES – Property Protection Checklists

Further guidance regarding ongoing/lasting property protection (from potential bushfire impact) is presented in the publication 'DFES – Fire Chat – Your Bushfire Protection Toolkit'. It is available from the Department of Fire and Emergency Services (DFES) website.

### 4. Requirements Established by AS 3959-2018 - Maintaining Areas within your Lot as 'Low Threat'

This information is provided for reference purposes. This knowledge will assist the landowner to comply with Management Requirement No. 3 set out in the Guidance Panel at the start of this Appendix. It identifies what is required for an area of land to be excluded from classification as a potential bushfire threat.

This information is taken from the Australian Standard AS 3959-2018 *Construction of buildings in bushfire prone areas*. This Standard presents the methods for calculating Bushfire Attack Levels that have been applied in this Report. The following specific section identifies what is required for an area of land to be excluded from classification as a potential bushfire threat.

*"Australian Standard - AS 3959-2018 Section 2.2.3.2: Exclusions - Low threat vegetation and non-vegetated areas"*

*The following vegetation shall be excluded from a BAL assessment:*

- a) Vegetation of any type that is more than 100m from the site.*
- b) Single areas of vegetation less than 1ha in area and not within 100m of other areas of vegetation being classified.*
- c) Multiple area of vegetation less than 0.25ha in area and not within 20m of the site or each other or of other areas of vegetation being classified vegetation.*
- d) Strips of vegetation less than 20m in width (measured perpendicular to the elevation exposed to the strip of vegetation) regardless of length and not within 20m of the site or each other, or other areas of vegetation being classified vegetation.*
- e) Non-vegetated areas that is, areas permanently cleared of vegetation, including waterways, exposed beaches, roads, footpaths, buildings and rocky outcrops.*
- f) Vegetation regarded as low threat due to factors such as flammability, moisture content or fuel load. This includes grassland managed in a minimal fuel condition, mangroves and other saline wetlands, maintained lawns, golf courses (such as playing areas and fairways), maintained public reserves and parklands, sporting fields, vineyards, orchards, banana plantations, market gardens (and other non-curing crops), cultivated gardens, commercial nurseries, nature strips and windbreaks.*

Notes:

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

## Appendix 2 - Vehicular Access Technical Requirements

Each local government may have their own standard technical requirements for emergency vehicular access and they may vary from those stated in the Guidelines.

Contact the relevant local government for the requirements that are to apply in addition to the requirements set out as an acceptable solution in the Guidelines. If the relevant local government requires that these are included in the Bushfire Management Plan, they will be included in this appendix and referenced.

### Requirements Established by the Guidelines – The Acceptable Solutions

(Source: Guidelines for Planning in Bushfire Prone Areas WAPC 2017 v1.3, Appendix 4)

Vehicular Access Technical Requirements					
Technical Component	Vehicular Access Types				
	Public Roads	Cul-de-sacs	Private Driveways	Emergency Access Ways	Fire Service Access Routes
Minimum trafficable surface (m)	6*	6	4	6*	6*
Horizontal clearance (m)	6	6	6	6	6
Vertical clearance (m)	4.5	4.5	4.5	4.5	4.5
Maximum grade <50 metres	1 in 10	1 in 10	1 in 10	1 in 10	1 in 10
Minimum weight capacity (t)	15	15	15	15	15
Maximum cross-fall	1 in 33	1 in 33	1 in 33	1 in 33	1 in 33
Curves minimum inner radius (m)	8.5	8.5	8.5	8.5	8.5

\* A six metre trafficable surface does not necessarily mean paving width. It could, for example, include four metres of paving and one metre of constructed road shoulders. In special circumstances, where 8 lots or less are being serviced, a public road with a minimum trafficable surface of four metres for a maximum distance of ninety metres may be provided subject to the approval of both the local government and DFES.

WESTERN



AUSTRALIA

REGISTER NUMBER

**301/DP64537**DUPLICATE  
EDITION**N/A**

DATE DUPLICATE ISSUED

**N/A**

# RECORD OF CERTIFICATE OF TITLE

## UNDER THE TRANSFER OF LAND ACT 1893

VOLUME  
**2741**FOLIO  
**719**

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.



REGISTRAR OF TITLES

**LAND DESCRIPTION:**

LOT 301 ON DEPOSITED PLAN 64537

**REGISTERED PROPRIETOR:**  
 (FIRST SCHEDULE)

ARTHUR RUEBEN ADAMSON OF POST OFFICE BOX 80, MERREDIN

(T H227461 ) REGISTERED 20/9/1999

**LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:**  
 (SECOND SCHEDULE)

1. \*H227463 MORTGAGE TO BANK OF WESTERN AUSTRALIA LTD REGISTERED 20/9/1999.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.  
 \* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.  
 Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

**STATEMENTS:**

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: DP64537  
 PREVIOUS TITLE: 1485-356  
 PROPERTY STREET ADDRESS: 75 ADAMSON RD, MERREDIN.  
 LOCAL GOVERNMENT AUTHORITY: SHIRE OF MERREDIN

NOTE 1: L301096 THIS LOT/TITLE CREATED AFTER PORTION OF THE LAND TAKEN FROM THE FORMER LOT WITHOUT PRODUCTION OF THE DUPLICATE TITLE BY TAKING ORDER L301096.  
 CURRENT DUPLICATE FOR THE WITHIN LAND IS STILL VOL.1485 FOL.356



WESTERN



AUSTRALIA

REGISTER NUMBER

**525/DP67327**DUPLICATE  
EDITION**N/A**

DATE DUPLICATE ISSUED

**N/A**VOLUME  
**2741**FOLIO  
**720****RECORD OF CERTIFICATE OF TITLE**  
UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.



REGISTRAR OF TITLES

**LAND DESCRIPTION:**

LOT 525 ON DEPOSITED PLAN 67327

**REGISTERED PROPRIETOR:**  
(FIRST SCHEDULE)

BEN GEORGE DANIELL  
ANDREW JOHN PAGE  
BOTH OF 64 OLD YORK ROAD, NORTHAM  
AS TENANTS IN COMMON IN EQUAL SHARES

(T L000691 ) REGISTERED 7/7/2009

**LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:**  
(SECOND SCHEDULE)

1. \*L000692 CAVEAT BY WESTERN AUSTRALIAN LAND AUTHORITY LODGED 7/7/2009.
2. \*L614044 CAVEAT BY LYNETTE NICHOLE PAGE AS TO THE INTEREST OF ANDREW JOHN PAGE ONLY LODGED 29/4/2011.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.  
\* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.  
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

**STATEMENTS:**

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: DP67327  
PREVIOUS TITLE: 2574-363  
PROPERTY STREET ADDRESS: NO STREET ADDRESS INFORMATION AVAILABLE.  
LOCAL GOVERNMENT AUTHORITY: SHIRE OF MERREDIN

NOTE 1: L301096 THIS LOT/TITLE CREATED AFTER PORTION OF THE LAND TAKEN FROM THE FORMER LOT WITHOUT PRODUCTION OF THE DUPLICATE TITLE BY TAKING ORDER L301096.  
CURRENT DUPLICATE FOR THE WITHIN LAND IS STILL VOL.2574 FOL.363 EDITION 2.