



Bushfire Management Plan (Subdivision)

Proposed subdivision at

L806 & A42 Shanns Road, North Dandalup

Client: Corrib Developments

February 2025

Document Control

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	Updated lot Layouts and BAL Table				

Disclaimer and Limitation

This report is prepared solely for the client, any future landowners of the subject lot and is not for the benefit of any other person and may not be relied upon by any other person. Bushfire Smart accepts no liability or responsibility whatsoever for or in respect of any use or reliance upon this report and its supporting material by any third party.

The mitigation strategies contained in this report are considered to be prudent minimum standards only, based on the writer's experience as well as standards prescribed by relevant authorities. It is expressly stated that Bushfire Smart and the writer do not guarantee that if such standards are complied with or if a property owner exercises prudence, that a building or property will not be damaged or destroyed by bushfire or that lives will not be lost in a bush fire. Fire is an extremely unpredictable force of nature. Changing climatic factors (whether predictable or otherwise) either before or at the time of a fire can also significantly affect the nature of a fire and in a bushfire prone area it is not possible to completely guard against bushfire.

Further, the growth, planting or removal of vegetation; poor maintenance of any fire prevention measures; addition of structures not included in this report; or other activity can and will change the bushfire threat to all properties detailed in the report. Further, the achievement of the level of implementation of fire precautions will depend on the actions of the landowner or occupiers of the land, over which Bushfire Smart has no control.

This report does not negate the need to follow Local government authority requirements for Firebreak and Fuel Hazard Reduction. The client agrees that in submitting this report they approve of and will comply with all requirements detailed.


About the author:

Bushfire Smart has been providing bushfire risk management reports and advise for over 7 years and undertake assessments of planning and land development applications to verify compliance with State Planning Policy 3.7 and associated bushfire regulations.

Nathan Peart is the bushfire lead and has over 20 years' experience in the construction and planning fields. Nathan has completed a Graduate Diploma in Bushfire Protection at the University of Western Sydney.

Nathan is supported by several other team members with varying levels of accreditation.

Bushfire Smart hold Professional Indemnity Insurance to the value of \$2,000,000 which includes cover for bushfire attack level assessments, planning, design and advice services as prescribed in FPA Australia's Bushfire Planning and Design Accreditation Scheme for a BPAD - Level 3 practitioner.

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Executive Summary

The proposal is at L806 & A42 Shann's Road, North Dandalup, with this BMP created to support a subdivision application for 75 new lots.

The proposal is in an area that has been partially designated as bushfire prone and must therefore comply with State Planning Policy 3.7 (SPP3.7). Guidelines for Planning Bushfire Prone Areas Version 1.4 (the Guidelines) has been used to determine the proposals compliance with SPP3.7.

The proposal is within an area that has some native vegetation, however APZ as required by this BMP will not require the clearing of this vegetation. All lots can achieve BAL 29 or below.

An assessment against the bushfire protection criteria (Appendix Four of the guidelines) is required to be undertaken. The following table summarises the outcome of this assessment.

Table A.1: Summary of assessment against bushfire protection criteria

Element	Acceptable Solution	Compliance Method	Compliance notes.
1: Location	A1.1 Development location	Acceptable Solution	On completion the application will be in an area subject to a moderate bushfire to low bushfire threat.
2: Sitting of development	A2.1 Asset Protection Zone (APZ)	Acceptable Solution	An APZ can be achieved and contained within the lot boundaries.
3: Vehicular Access	A3.1 Public Roads	Acceptable Solution	Public roads meet the minimum technical requirements of guidelines.
	A3.2a Multiple access routes	Acceptable Solution	Access is provided in at least two different directions.
	A3.2b Emergency access ways	N/A	
	A3.3 Through-roads	Acceptable Solution	Roads which are no through roads are 200 metres or less.
	A3.4a Perimeter roads	Acceptable Solution	A road or FSAR is provided between subdivision and neighboring land. Lots adjoining future subdivision adjoin Grassland therefore perimeter road not required abutting these lots.
	A3.4b Fire service access routes	Acceptable Solution	Access to classified vegetation, which is not grassland is provided via a fire service access route meeting the requirements of the guidelines where the lots border onto the neighboring land.
	A3.5 Battle axes	N/A	
	A3.6 Private driveways	Acceptable Solution	Private driveways can meet the requirements of the guidelines.
4: Water	A4.1 Identification of future water supply	Acceptable Solution	Sites will be connected to a reticulated to water supply with hydrants as per water
	A4.2 Provision of water for firefighting purposes	Acceptable Solution	Hydrants provided to comply with Water Corporation's No. 63 Water Reticulation Standard.

Compliance with this BMP, and therefore SPP3.7, will require action prior, during and after development. The items requiring implementation include:

- APZ to be established and maintained throughout the life of the proposal.
- Roads to be constructed to the standard stated in this BMP.
- Fire service access routes to be constructed and maintained to the standard stated in this BMP.
- Hydrants to be installed to comply with Water Corporation requirements.
- Restrictive covenants and notices to be placed on titles.

The entire report should be read in conjunction with the guidelines to ensure all requirements are understood.

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1. Proposal and Site Details

1.1 Proposal Details

The proposal is at L806 & A42 Shann's Road, North Dandalup. The land is currently vacant farming land a portion of the lot is to be subdivided into 75 lots (not including the balance) ranging from 1.0012ha to 1.852ha.



Figure 1: Site Plan

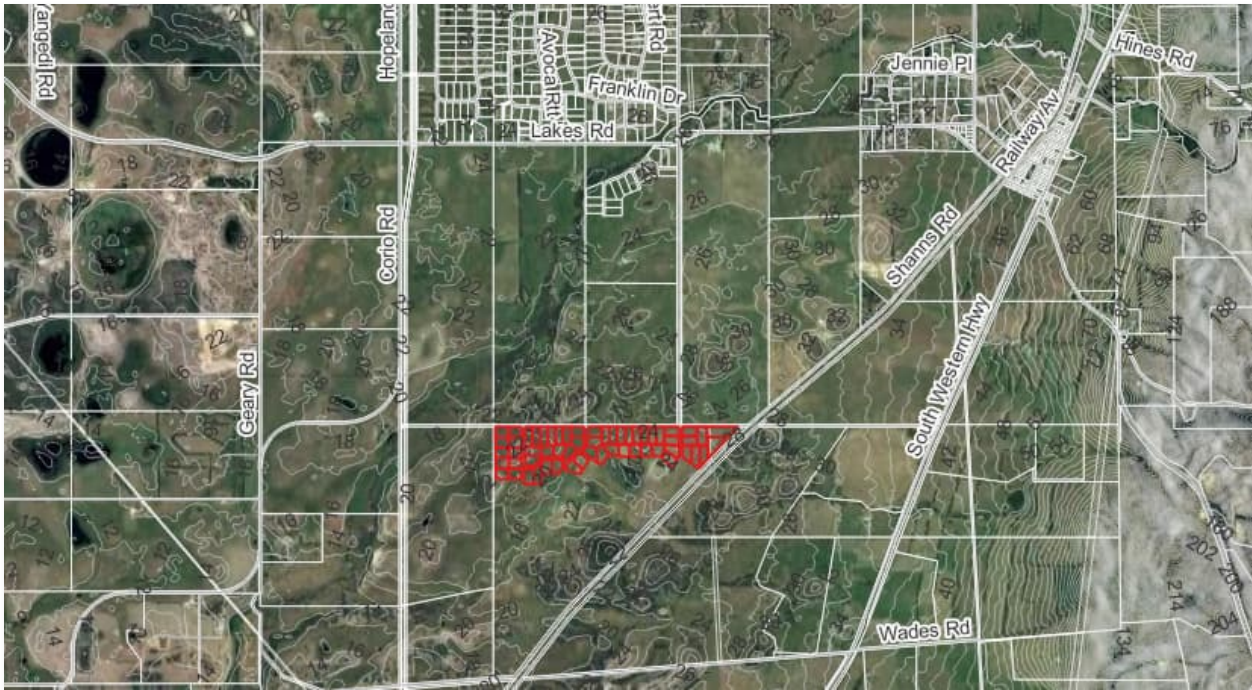


Figure 2: Location Plan



Figure 3: Map of Bushfire Prone Area for Subject Site

2. Environmental Considerations

In order to identify environmental, biodiversity of conservation values on the subject site, the site has been examined against the following databases as shown in table 2.

Object	Database	Identified	Details
Conservation category wetlands and buffer	DBCA-019/ DBCA-017	Yes	Site identified within area – further action required.
RAMSAR wetlands	DBCA-010	No	Site not identified within database.
Threatened and priority flora	DBCA-036	No	Site not identified within database.
Threatened and priority fauna	DBCA-037	No	Site not identified within database.
Threatened Ecological Communities	DBCA-038	No	Site not identified within database.
Bush Forever areas 2000	DPLH-019	No	Site not identified within database.
Clearing regulations – Environmentally Sensitive Areas	DWER-046	No	Site not identified within database.
Swan Bioplan Regionally Significant Natural Areas 2010	DWER-070	Yes	Site identified within area – further action required.
Local government biodiversity/planning	-	No	-

Table 1: Assessment against environmental considerations

The subject site has areas identified by the Department of Biodiversity, Conservation and Attractions (DBCA) as being within a conservation category wetlands and buffer area, although not in the portion of the land subject to this proposal. Additionally, the site has portions recognised as Environmentally Sensitive Areas as identified by the Department of Water and Environmental Resources (DWER).

The applicant will need to seek clarification from the appropriate authorities, which may include preparation of reports from suitably qualified consultants, to ensure any clearing is appropriate for the area.

2.1 Native vegetation – modification and clearing

The site has been checked against the Native Vegetation mapping conducted by the Department of Primary Industries and Regional Development (DPIRD-005). Native vegetation has been found as shown in image below.

The asset protection zone, as required in this BMP, is unlikely to require the removal of native vegetation.



Figure 4: Map of Native Vegetation Extents for Subject Site

2.2 Revegetation/landscape plan

Any revegetation required on lots is to be outside the Asset Protection Zones noted in Table 3 and on Figure 7. All landscaping within the APZ areas to be maintained to low threat as per APZ guidelines (See Section 4 – Element 2).

Lots along the 50-metre-wide landscape screening buffer are deep enough to allow separation between the buffer and the APZ area. Any part of the buffer that is within 21 metres of the proposed residence location and/or building envelope is to be established and maintained in a low fuel state as per APZ guidelines (See Section 4 – Element 2).

3 Bushfire Assessment

3.1 Site Assessment

The assessment of this site/development was undertaken on 23 March 2023 by a BPAD Accredited Practitioner for the purpose of determining the Bushfire Attack Level in accordance with AS 3959-2018 Simplified Procedure (Method 1).

The results have been summarised in the form of a BAL contour plan in figure 6.

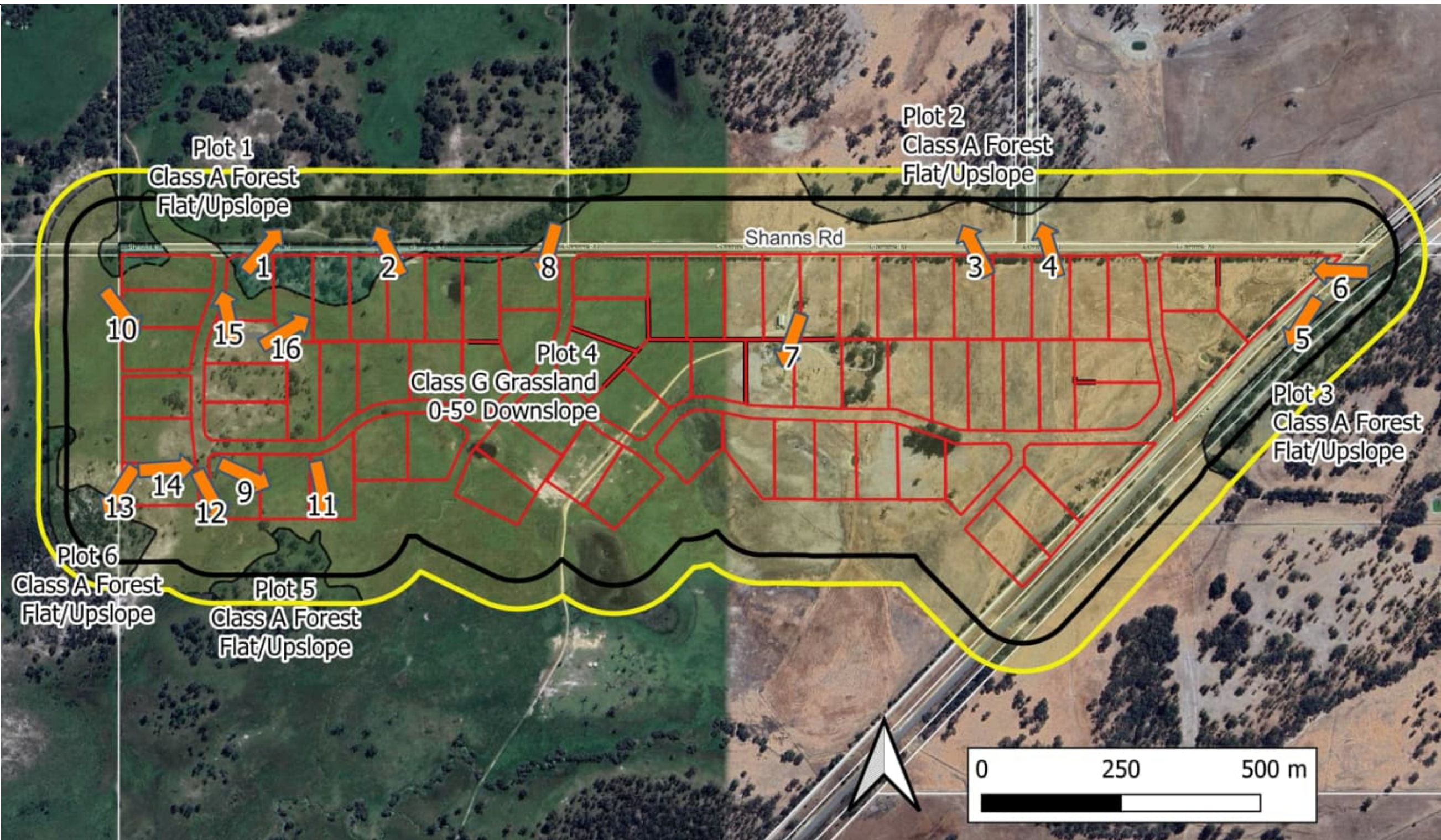


Figure 5: Vegetation Classification

L806 & A42 Shanns Road, North Dandalup

Assessment Date: 23 March 2023
Prepared by: Nathan Peart
Accreditation Level: 3
Accreditation Number: 38808

Legend

- | | | |
|------------------|---------------------|--------------|
| Subject Lot | Class B - Woodland | Excludable |
| 150m Buffer Line | Class C - Shrubland | Photo Points |
| 100m Buffer Line | Class D - Scrub | |
| Class A Forest | Class G - Grassland | |

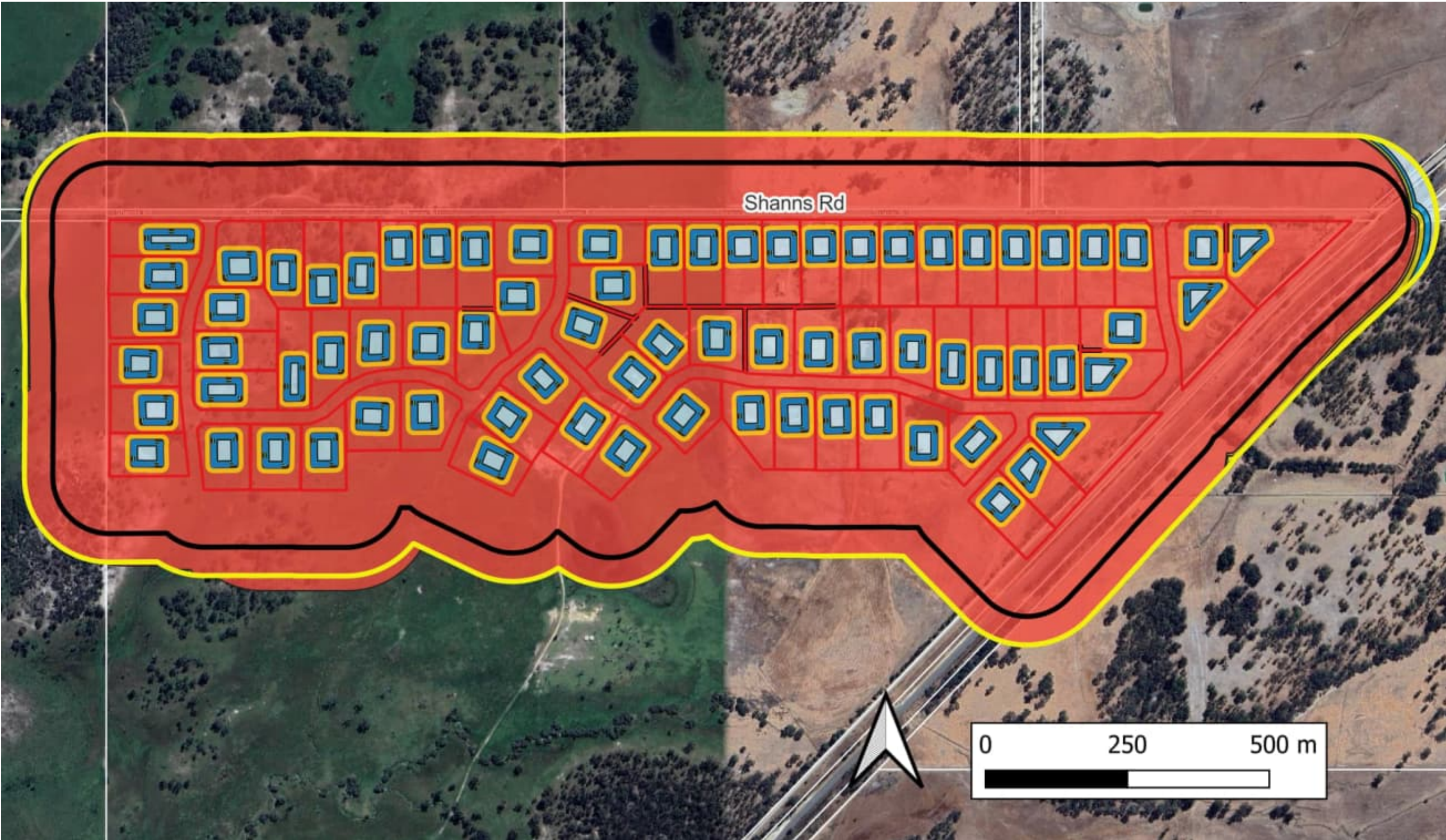


Figure 6: BAL Contours (Attainable)



L806 & A42 Shanns Road, North Dandalup
Assessment Date: 23 March 2023
Prepared by: Nathan Peart
Accreditation Level: 3
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Legend

	Proposed Lot Bdy		150m area assessment		BAL FZ		BAL 19
	Site boundary		Photo point		BAL 40		BAL 12.5
	100m area assessment		Plot / Veg Class. & Slope		BAL 29		BAL Low


3.2 Vegetation Classification

All vegetation within 150m of the site / proposed development was classified in accordance with Clause 2.2.3 of AS 3959-2018. Each distinguishable vegetation plot with the potential to determine the Bushfire Attack Level is identified below.



Plot:	1	Vegetation Classification or Exclusion Clause	Class A Forest - Tall woodland A-02
Description / Justification for Classification			
Tall trees with grassy understorey. Foliage cover greater than 30%.			
 <p>DIRECTION 38 deg(T) 32.53935°S 115.92172°E ACCURACY 6 m DATUM GDA2020</p> <p>North Danalup 2023-02-27 09:43:16+08:00</p>		 <p>DIRECTION 332 deg(T) 32.53936°S 115.92416°E ACCURACY 5 m DATUM GDA2020</p> <p>North Danalup 2023-03-23 10:23:22+08:00</p>	
Photo ID: 1		Photo ID: 2	


Plot:	2	Vegetation Classification or Exclusion Clause	Class A Forest - Open forest A-03
Description / Justification for Classification			
Tall trees with grassy understorey. Foliage cover greater than 30%.			
 <p>DIRECTION 333 deg(T) 32.53936°S 115.93537°E ACCURACY 5 m DATUM GDA2020</p> <p>North Danalup 2023-03-23 10:15:15+08:00</p>		 <p>DIRECTION 343 deg(T) 32.53935°S 115.93678°E ACCURACY 5 m DATUM GDA2020</p> <p>North Danalup 2023-03-23 10:14:58+08:00</p>	
Photo ID: 3		Photo ID: 4	

Plot:	3	Vegetation Classification or Exclusion Clause	Class A Forest - Open forest A-03
Description / Justification for Classification			
Tall trees with grassy understorey. Foliage cover greater than 30%.			
<div> <div>DIRECTION</div> <div>213 deg(T)</div> </div> <div> <div>32.54014°S</div> <div>115.94199°E</div> </div> <div> <div>ACCURACY 5 m</div> <div>DATUM GDA2020</div> </div>		<div> <div>DIRECTION</div> <div>272 deg(T)</div> </div> <div> <div>32.54014°S</div> <div>115.94200°E</div> </div> <div> <div>ACCURACY 5 m</div> <div>DATUM GDA2020</div> </div>	
			
Photo ID: 5		Photo ID: 6	

Plot:	4	Vegetation Classification or Exclusion Clause	Class G Grassland – Sown pasture G-26
Description / Justification for Classification			
Existing farmland and grazing areas.			
<div> <div>DIRECTION</div> <div>200 deg(T)</div> </div> <div> <div>32.54081°S</div> <div>115.93186°E</div> </div> <div> <div>ACCURACY 5 m</div> <div>DATUM GDA2020</div> </div>		<div> <div>DIRECTION</div> <div>196 deg(T)</div> </div> <div> <div>32.53937°S</div> <div>115.92721°E</div> </div> <div> <div>ACCURACY 5 m</div> <div>DATUM GDA2020</div> </div>	
			
Photo ID: 7		Photo ID: 8	

Plot:	4	Vegetation Classification or Exclusion Clause	Class G Grassland – Sown pasture G-26
Description / Justification for Classification			
Existing farmland and grazing areas.			
<div> <div>DIRECTION 115 deg(T)</div> <div>32.54273°S 115.92101°E</div> <div>ACCURACY 5 m DATUM GDA2020</div> </div>  <div>North Danalup</div> <div>2023-03-23 10:36:04+08:00</div>		<div> <div>DIRECTION 98 deg(T)</div> <div>32.54012°S 115.91906°E</div> <div>ACCURACY 5 m DATUM GDA2020</div> </div>  <div>North Danalup</div> <div>2023-03-23 10:38:59+08:00</div>	
Photo ID: 9		Photo ID: 10	

Plot:	5	Vegetation Classification or Exclusion Clause	Class G Grassland – Sown pasture G-26
Description / Justification for Classification			
Existing farmland and grazing areas.			
<div> <div>DIRECTION 168 deg(T)</div> <div>32.54282°S 115.92103°E</div> <div>ACCURACY 5 m DATUM GDA2020</div> </div>  <div>North Danalup</div> <div>2023-03-23 10:36:21+08:00</div>		<div> <div>DIRECTION 152 deg(T)</div> <div>32.54287°S 115.92100°E</div> <div>ACCURACY 5 m DATUM GDA2020</div> </div>  <div>North Danalup</div> <div>2023-03-23 10:36:34+08:00</div>	
Photo ID: 11		Photo ID: 12	

Plot:	6	Vegetation Classification or Exclusion Clause	Class A Forest - Open forest A-03
Description / Justification for Classification			
Tall trees with grassy understorey. Foliage cover greater than 30%.			
<div> <div>DIRECTION 213 deg(T)</div> <div>32.54324°S 115.91901°E</div> <div>ACCURACY 5 m DATUM GDA2020</div> </div>  <div> <div>2023-03-23 10:29:34+08:00</div> <div>North Danalup</div> </div>		<div> <div>DIRECTION 86 deg(T)</div> <div>32.54288°S 115.91991°E</div> <div>ACCURACY 5 m DATUM GDA2020</div> </div>  <div> <div>2023-03-23 10:31:39+08:00</div> <div>North Danalup</div> </div>	
Photo ID: 13		Photo ID: 14	

Plot:	7	Vegetation Classification or Exclusion Clause	Class B Woodland - Open woodland B-06
Description / Justification for Classification			
Grassland with isolated trees.			
<div> <div>DIRECTION 347 deg(T)</div> <div>32.54218°S 115.92015°E</div> <div>ACCURACY 5 m DATUM GDA2020</div> </div>  <div> <div>2023-03-23 10:33:08+08:00</div> <div>North Danalup</div> </div>		<div> <div>DIRECTION 59 deg(T)</div> <div>32.54274°S 115.92095°E</div> <div>ACCURACY 5 m DATUM GDA2020</div> </div>  <div> <div>2023-03-23 10:36:00+08:00</div> <div>North Danalup</div> </div>	
Photo ID: 15		Photo ID: 16	

Potential Bushfire Impacts

All vegetation within 150 metres of the site was classified in accordance with clause 2.2.3 of AS3959-2018.

The Fire Danger Index (FDI) – 80-and table 2.4.3 AS3959-2018 applied.

The potential bushfire impact to the site / proposed development from each of the identified vegetation plots are identified below.

Plot	Vegetation Classification	Effective Slope
1	Class A - Forest	Flat/Upslope
2	Class A - Forest	Flat/Upslope
3	Class A - Forest	Flat/Upslope
4	Class G Grassland	Downslope 0-5°
5	Class A - Forest	Flat/Upslope
6	Class A - Forest	Flat/Upslope
7	Class B Woodland	Flat/Upslope

Table 2: BAL Analysis

Table 3: BAL Analysis with APZ requirements

Lot(s)	Vegetation Classification	Effective Slope	Min. APZ required	Modified BAL Contour
	Building envelope not in bushfire prone area	-	10 metres recommended	BAL LOW
31	Building envelope not in bushfire prone area	-	10 metres recommended generally and min. 21 metres from revegetation strip.	BAL LOW
32	Building envelope not in bushfire prone area	-	10 metres recommended	BAL LOW
33	Building envelope not in bushfire prone area	-	10 metres recommended generally and min. 21 metres from revegetation strip.	BAL LOW
34-46	Building envelope not in bushfire prone area	-	10 metres recommended	BAL LOW
47	Class G Grassland	0-5° Downslope	10 metres all directions	BAL 29
48-62	Building envelope not in bushfire prone area	-	10 metres recommended	BAL LOW
63-65	Building envelope not in bushfire prone area	-	10 metres recommended generally and min. 21 metres from revegetation strip.	BAL LOW
66-79	Building envelope not in bushfire prone area	-	10 metres recommended	BAL LOW
80-84	Class G Grassland	0-5° Downslope	10 metres all directions	BAL 29
85-86	Building envelope not in bushfire prone area	-	10 metres recommended	BAL LOW
87-88	Class G Grassland	0-5° Downslope	10 metres all directions	BAL 29
89-95	Class A - Forest	Flat/Upslope	21 metres north 10 metres all other directions	BAL 29
96	Class G Grassland	0-5° Downslope	10 metres all directions	BAL 29
97-101	Building envelope not in bushfire prone area	-	10 metres recommended	BAL LOW
105	Class G Grassland	0-5° Downslope	10 metres all directions	BAL 29

4 Assessment against the Bushfire Protection

An assessment against the bushfire protection criteria (Appendix Four of the guidelines) is required to be undertaken for any strategic planning proposal, subdivision and development application for a site that has or will, on completion, have a bushfire hazard level above 'Low' or a BAL rating above BAL LOW. The following section details the measure to be taken so that this proposal complies with these.

Element 1: Location

Intent:

The intent of this element is to ensure the proposal is located in the least possible risk of bushfire to facilitate the protection of people, property and infrastructure. To satisfy the intent, the proposal is required to be located in an area where the bushfire hazard assessment is or will, on completion, be moderate or low, or a BAL-29 or below, and the risk can be managed.

The development is not considered to be unavoidable.

Proposed bushfire management strategies:

Element 1 will be satisfied using Acceptable Solution A1.1. The proposal is located in an area that on completion, will be in an area that is a moderate or low bushfire level.

Element 2: Siting and design of development

Intent:

The intent of this element is to ensure that the siting and design of development minimises the level of bushfire impact.

Proposed bushfire management strategies:

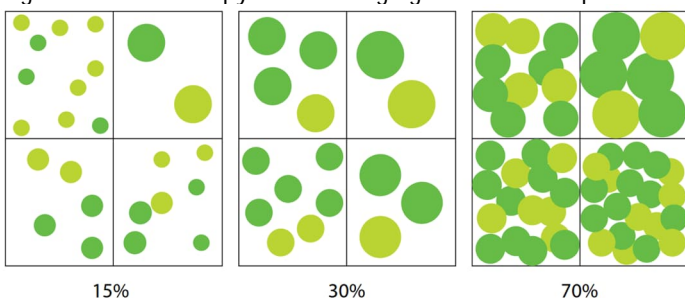
Element 2 will be satisfied using Acceptable Solution A2.1 Asset Protection Zone (APZ). APZ distances are to be as per table 3.

Where the building envelopes are outside the bushfire prone area, compliance with the Shire of Murray firebreak notice is required:

“all flammable material on the entire property is to be reduced and maintained to a height of less than five (5) centimetres”

The APZ is to be managed as per Schedule 1 of the guidelines, extract shown below.

Schedule 1: Standards for asset protection zones (WAPC 2021)

Object	Requirement
Fences within the APZ	Should be constructed from non-combustible materials (for example, iron, brick, limestone, metal post and wire, or bushfire-resisting timber referenced in Appendix F of AS 3959)
Fine fuel load (Combustible, dead vegetation matter <6 millimetres in thickness)	<ul style="list-style-type: none"> Should be managed and removed on a regular basis to maintain a low threat state. Should be maintained at <2 tonnes per hectare (on average). Mulches should be non-combustible such as stone, gravel or crushed mineral earth or wood mulch >6 millimetres in thickness.
Trees* (>6 metres in height)	<ul style="list-style-type: none"> Trunks at maturity should be a minimum distance of six metres from all elevations of the building. Branches at maturity should not touch or overhang a building or powerline. Lower branches and loose bark should be removed to a height of two metres above the ground and/or surface vegetation. Canopy cover within the APZ should be <15 per cent of the total APZ area. Tree canopies at maturity should be at least five metres apart to avoid forming a continuous canopy. Stands of existing mature trees with interlocking canopies may be treated as an individual canopy provided that the total canopy cover within the APZ will not exceed 15 per cent and are not connected to the tree canopy outside the APZ. <p>Figure 19: Tree canopy cover – ranging from 15 to 70 per cent at maturity</p>  <p>15% 30% 70%</p>
Shrub* and scrub* (0.5 metres to six metres in height). Shrub and scrub >6 metres in height are to be treated as trees.	<ul style="list-style-type: none"> Should not be located under trees or within three metres of buildings. Should not be planted in clumps >5 square metres in area. Clumps should be separated from each other and any exposed window or door by at least 10 metres.
Ground covers* (<0.5 metres in height. Ground covers >0.5 metres in height are to be treated as shrubs)	<ul style="list-style-type: none"> Can be planted under trees but must be maintained to remove dead plant material, as prescribed in 'Fine fuel load' above. Can be located within two metres of a structure, but three metres from windows or doors if >100 millimetres in height.
Grass	Grass should be maintained at a height of 100 millimetres or less, at all times. Wherever possible, perennial grasses should be used and well-hydrated with regular application of wetting agents and efficient irrigation
Defendable space	Within three metres of each wall or supporting post of a habitable building, the area is kept free from vegetation, but can include ground covers, grass and non-combustible mulches as prescribed above.
LP Gas Cylinders	<ul style="list-style-type: none"> Should be located on the side of a building furthest from the likely direction of a bushfire or on the side of a building where surrounding classified vegetation is upslope, at least one metre from vulnerable parts of a building. The pressure relief valve should point away from the house. No flammable material within six metres from the front of the valve. Must sit on a firm, level and non-combustible base and be secured to a solid structure.

Element 3: Vehicular Access

Intent:

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

Proposed bushfire management strategies:

Element 2 will be satisfied using Acceptable Solutions:

A3.1 Public Roads

The minimum requirements under this acceptable solution are applicable to all proposed and existing public roads.

Public roads are to meet the minimum technical requirements in Table 6, Column 1.

The trafficable (carriageway/pavement) width is to be in accordance with the relevant class of road in the local Government Guidelines for Subdivisional Development (IPWEA Subdivision Guidelines), Liveable Neighbourhoods, Austroad standards and/or any applicable standards for the local government area.

A3.2a Multiple access routes

Public road access is provided in two different directions to at least two different suitable destinations with an all-weather surface (two-way access).

First access is via Shanns Road. Second access is via Simmons Road (To be constructed).

A3.2b Emergency access way

N/A

A3.3 Through-roads

Public roads that form part of the subdivision and are to connect to the future subdivision to the south are not through roads. However, these portions of no through roads are less than 200 metres and comply with the guidelines. All no through roads are to have a temporary turnaround area compliant with figure 24 below until such time as they become through roads.

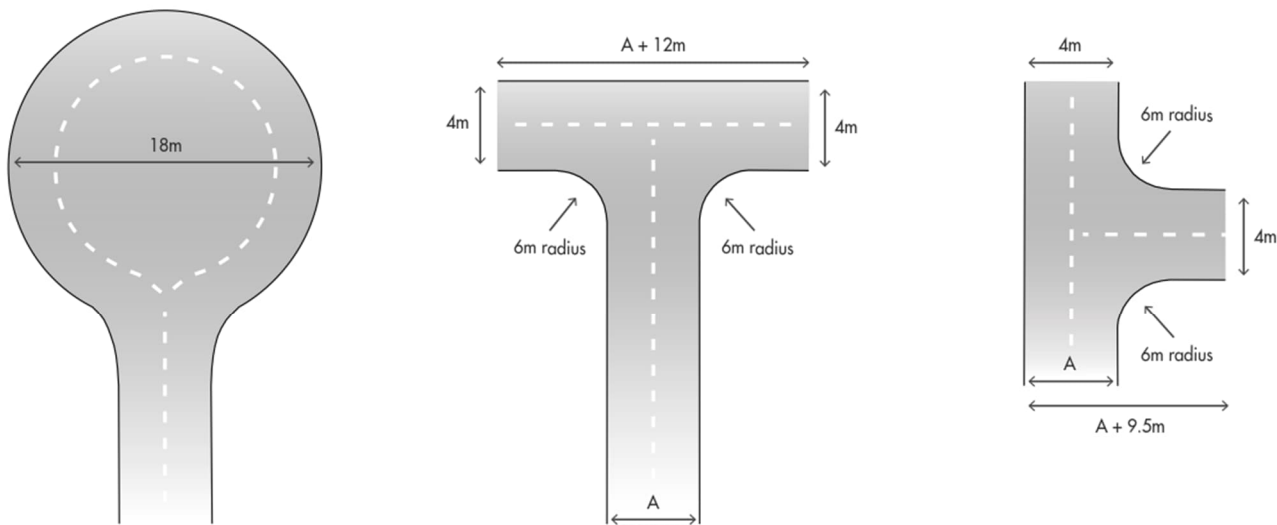


Figure 24: Turn-around area dimensions for a no-through road

A3.4a Perimeter Roads

The proposal includes a perimeter road and is to meet the requirement for public roads as per A3.1, apart from a portion which backs onto the future development area. This area is grassland, under the control of the developer and therefore does not require a perimeter road.

A3.4b Fire service access route

The fire access road runs along the west of lots 1 to 6 and is to meet all the following requirements:

- requirements in Table 6, Column 3;
- be through-routes with no dead-ends;
- linked to the internal road system at regular intervals, every 500 metres;
- must be signposted;
- no further than 500 metres from a public road;
- if gated, gates must open the required horizontal clearance and can be locked by the local government and/or emergency services, if keys are provided for each gate; and
- turn-around areas designed to accommodate type 3.4 fire appliances and to
- enable them to turn around safely every 500 metres.

A3.5 Battle-axe access legs

There are no battle-axe legs in this proposal.

A3.5 Private Driveways

Future private driveways that are greater than 70 metres in length are to meet the following requirements:

- requirements in Table 6, Column 4;
- turn-around area as shown in Figure 28 and within 30 metres of the habitable building.

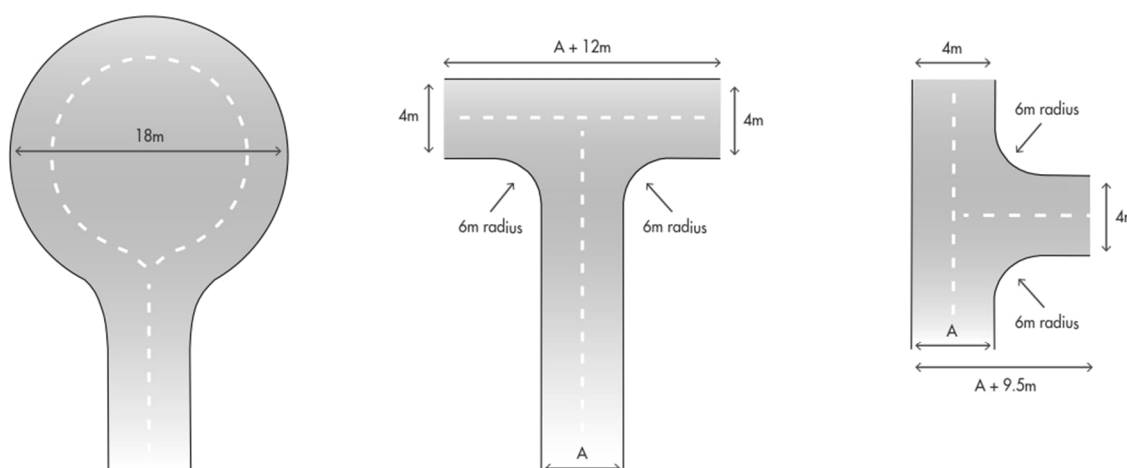


Figure 28: Design requirements for a turn-around area for a private driveway or battle-axe

Extract from Guidelines: Table 6: Vehicular access technical requirements

TECHNICAL REQUIREMENTS	1 Public roads	2 Emergency access way ¹	3 Fire service access route ¹	4 Battle-axe and private driveways ²
Minimum trafficable surface (metres)	In accordance with A3.1	6	6	4
Minimum horizontal clearance (metres)	N/A	6	6	6
Minimum vertical clearance (metres)	4.5			
Minimum weight capacity (tonnes)	15			
Maximum grade unsealed road ³	As outlined in the IPWEA Subdivision Guidelines	1:10 (10%)		
Maximum grade sealed road ³		1:7 (14.3%)		
Maximum average grade sealed road		1:10 (10%)		
Minimum inner radius of road curves (metres)		8.5		

Notes:

¹ To have crossfalls between 3 and 6%.

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

³ Dips must have no more than a 1 in 8 (12.5% -7.1 degree) entry and exit angle.

Element 4: Water

Intent:

To ensure that water is available to enable people, property and infrastructure to be defended from bushfire.

Proposed bushfire management strategies:

Element 4 will be satisfied using Acceptable Solutions:

A4.1 Identification of future water supply

Water supply will be through a reticulated water supply as detailed in A4.2

A4.2 Provision of water for firefighting purposes

Water supply will be through a reticulated water with hydrant connections provided in accordance with Water Corporation's No. 63 Water Reticulation Standard.

5 Implementation

The following tables set out the responsibilities of the developer(s), landowner(s) and local government for the initial implementation and ongoing maintenance associated with this proposal.

Management Action	Timing
Proponent/Developer	
Establish vehicular access routes to the required surface condition and clearances	Prior to issue of titles
Hydrants to be installed to comply with Water Corporation requirements.	Prior to issue of titles
Place Section 165 notice on title for all lots within the bushfire prone area	Prior to issue of titles
A restrictive covenant pursuant to Section 129BA, restricting the use of land within a BAL 40 or BAL-FZ area to be placed on lots	Prior to issue of titles
Construct balance of Simmons Road so that it is connected to the existing road network	Prior to issue of titles
Extract of this bushfire management plan showing BAL contour levels and applicable BAL level (Highest and modified) and setbacks required for modified BAL level to be included in all sales documentation for this land release and provided to all prospective purchasers	Prior to sale
Driveway requirements to be included as a restrictive covenant on all lots within the bushfire prone area	Prior to issue of titles
Occupants	
Maintain vehicular access routes to the required surface condition and clearances	Ongoing
Establish the Asset Protection Zone (APZ) to the dimensions and standard stated in this BMP	Prior to construction
Maintain the Asset Protection Zone (APZ) to the dimensions and standard stated in this BMP	Ongoing

5.1 Acknowledgement

Acknowledgement - Proponent

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

6 General References

Standards Australia 2009, *AS 3959-2018 Construction of buildings in bushfire-prone areas*, Sydney

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

Western Australian Planning Commission (WAPC) 2015, *State Planning Policy 3.7 Planning in Bushfire Prone Areas*, Western Australian Planning Commission, Perth, Perth

Western Australian Planning Commission and (WAPC) 2021, *Guidelines for Planning in Bushfire Prone Areas Version 1.4*, Western Australia

7 Online references

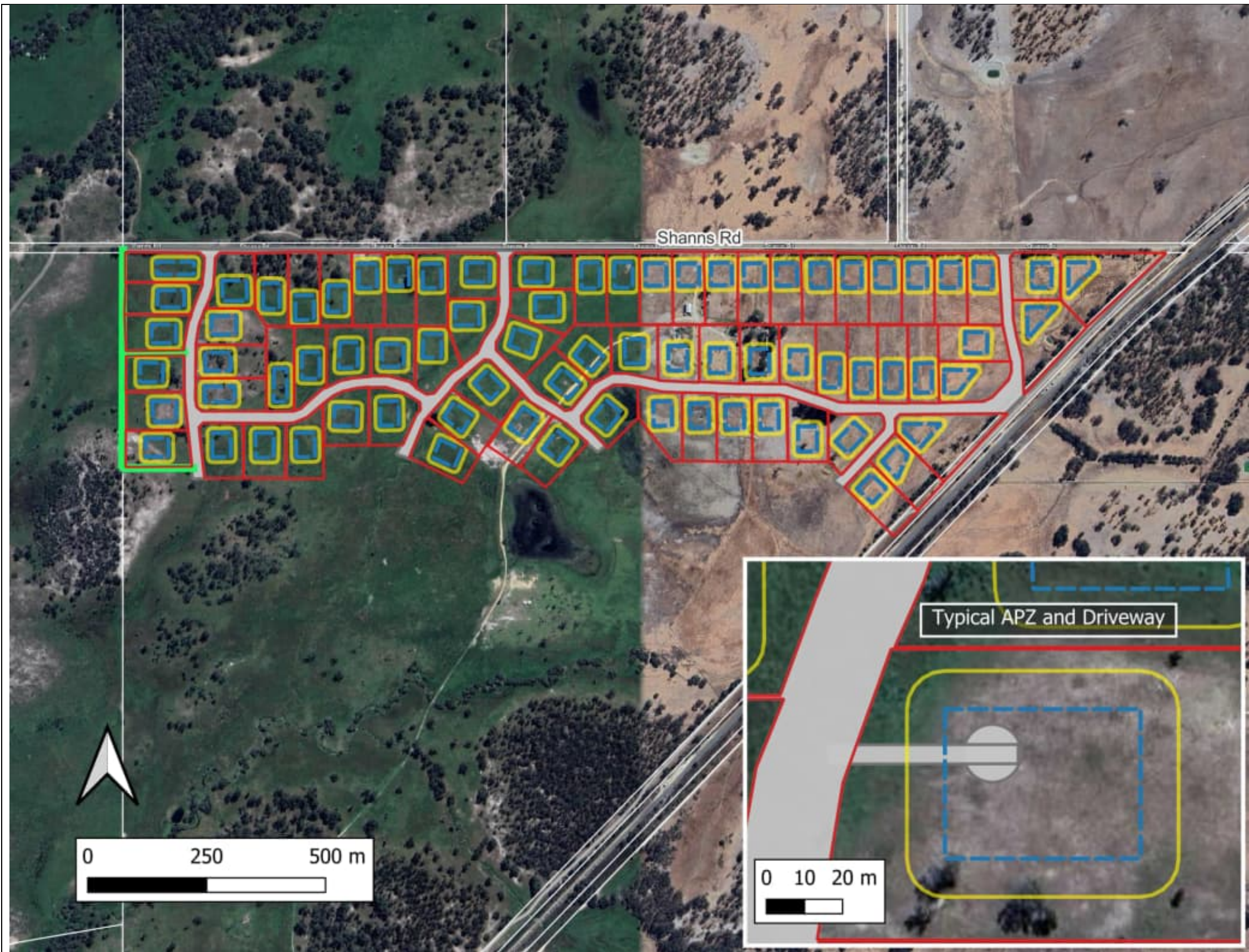
Office of Bushfire Risk management (OBRM) 2017, Map of Bush Fire Prone Areas, Viewed March 23, <
<https://maps.slip.wa.gov.au/landgate/bushfireprone/>>

Office of Bushfire Risk Management (OBRM), Bushfire Risk Management (BRM) Plan Guidelines, Viewed March 23.

WA Local Government Association (WALGA), Environmental Planning Tool, Viewed March 23, <
bbp.walga.asn.au/Tools/EnvironmentalPlanningTool.html>

8 Appendices

Appendix A: Spatial Representation of proposed risk management measures (Next Page)



Legend
<div><div><div></div></div>Proposed Lot Boundaries</div> <div><div><div></div></div>Building Envelope</div> <div><div><div></div></div>APZ</div> <div><div><div></div></div>Road/Turnaround</div> <div><div><div></div></div>EAW</div>
Bushfire Protection Criteria
<p>APZ requirements: APZ required around any future buildings. Distance required as per Table 3 of this BMP. Lots outside Bushfire Prone area to comply with the Shire of Murray Firebreak Notice.</p> <p>Revegetation of lots and landscape screening buffer to be predominantly outside APZ area. Any areas within APZ to be maintained to low fuel state.</p> <p>Access requirements: Roads to comply with the requirements of this BMP. Simmons Road to be connected to public road network. EAW required until land developed to the south. Future residences with a driveway longer than 70 metres to comply with the following specifications: Minimum trafficable surface: 4 metres Horizontal clearance: 6 metres Vertical clearance: 4.5 metres Turnaround: 18 metre diameter</p> <p>Water Requirements: New water hydrants to be provided to the requirements of Water Corporation requirements.</p>
<p>Figure 7: Spatial Representation of proposed risk management measures.</p>
<p>L806 & A42 Shanns Road, North Dandalup</p>
<p>Assessment Date: 23 March 2023 Prepared by: Nathan Peart Accreditation Level: BPAD Level 3 Accreditation Number: 38808 Accreditation Expiry: May 2025</p>

Appendix B: Shire of Murray Firebreak Notice (Next Page)
