Bushfire Management Plan / Statement addressing the Bushfire Protection Criteria coversheet

Site address: Lot 46 Treeton Road, Cowaramup

Site visit: Yes ☒ No ☐

Date of site visit (if applicable): Day 16 Month 08 Year 2025

Report author or reviewer: Nathan Peart

WA BPAD accreditation level (please circle):

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

If accredited, please provide the following.

BPAD accreditation number: 38808 Accreditation expiry: Month May Year 2026

Bushfire management plan version number: 2

Bushfire management plan date: Day 28 Month AUG Year 2025

If one or more of the following are selected, then these should be automatically referred to DFES.	YES	NO
Strategic planning is required to address SPP 3.7 and the Guidelines	☐	☒
The application is a vulnerable land use	☐	☒

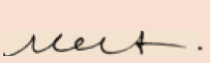
None of the Above ☒

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

None of the Above ☒

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

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

Signature of report author or reviewer  Date 28 August 2025

Bushfire Management Plan

Proposed Subdivision at: Lot 46 Treeton Road, Cowaramup

Client: Corrib Developments Pty Ltd

Report Number: 24-22619

Assessment Date: 16 August 2025

Report Date: 28 August 2025

Prepared by a BPAD Accredited Practitioner

BUSHFIRE SMART

Document Control

Doc name:	Bushfire Management Plan (DA) - Lot 46 Treeton Road, Cowaramup				
Version	Date	Author		Reviewer	
1	27/08/2025	Jess Calcutt	JC	Nathan Peart	NP
	Initial Report Issued				
2	28/08/2025	Jess Calcutt	JC	Nathan Peart	NP
	Revised version reflecting new plan and correct issued date				

Disclaimer and Limitation

This report is prepared exclusively for the client and any future landowners of the subject lot. It is not intended for the benefit of any other person and may not be relied upon by any other party. Bushfire Smart accepts no liability or responsibility for any use or reliance upon this report and its supporting materials by third parties.

The mitigation strategies outlined in this report represent prudent minimum standards based on the writer's experience and the standards prescribed by relevant authorities. It is expressly stated that Bushfire Smart and the writer do not guarantee that compliance with these standards or the exercise of prudence by a property owner will prevent damage or destruction of a building or property by bushfire, or the loss of lives in a bushfire. Fire is an extremely unpredictable force of nature, and changing climatic factors, whether predictable or otherwise, can significantly affect the nature of a fire. In a bushfire-prone area, it is not possible to completely guard against bushfire.

Furthermore, the growth, planting, or removal of vegetation; poor maintenance of fire prevention measures; addition of structures not included in this report; or other activities can and will alter the bushfire threat to all properties detailed in the report. 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.

Insurance Coverage Statement

Bushfire Smart is covered by Professional Indemnity Insurance up to $2,000,000 and Public Liability Insurance valued at $20,000,000. These policies provide comprehensive coverage for bushfire attack level assessments, planning, design, and advisory services, in accordance with the FPA Australia Bushfire Planning and Design Accreditation Scheme for a BPAD-Level 3 practitioner.

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Executive Summary

The proposal is at Lot 46 Treeton Road, Cowaramup, with this BMP created to support a **subdivision application** for 36 lots.

The proposal is in an area that has been designated as bushfire prone and must therefore comply with State Planning Policy 3.7 (SPP 3.7). Planning for Bushfire Guidelines (September 2024) has been used to determine the proposals compliance with SPP 3.7.

The proposal is not within an area that has been designated as Native Vegetation by the Department of Primary Industries and Regional Development (DPIRD-005). Additionally, no environmental factors apply.

The proposal is located within Bush Fire Prone Area 2. Therefore, a Broader Landscape Assessment (BLA) is required.

Lot(s) can achieve a buildable area of BAL—29 or below.

An assessment against the Bushfire Protection Criteria 5 is required to be undertaken. The following table summarises the outcome of this assessment.

Table A.1: Summary of assessment against Bushfire Protection Criteria 5

Element	Acceptable Solution	Compliance Method	Compliance notes.
1: Location	A1.1 Development location	**Acceptable Solution**	The subdivision is within an area classified as Broader Landscape Type A.
2: Siting and Design	A2.1 Siting and design	**Acceptable Solution**	Lots contain a sufficient development site(s) that can achieve a radiant heat impact not exceeding 29 kW/m² (BAL-29).
	A2.2 Asset Protection Zone (APZ)	**Acceptable Solution**	Offsets have been provided to demonstrate a maximum BAL rating of 29 or below buildable area, but exact requirements are to be determined at DA stage upon individual application.
	A2.3 Clearing of native vegetation	**Acceptable Solution**	The subdivision avoids the clearing of native vegetation.
3: Vehicular Access	A3.1 Public Roads	**Acceptable Solution**	Public roads can meet the minimum technical requirements in Appendix B.3, Table 10.
	A3.2 Access routes	**Acceptable Solution**	Area 2: Access is provided in at least two different suitable destinations
	A3.3a No through-roads	**Acceptable Solution**	No-through-road length meets requirements of the guidelines.
	A3.3b No through-road requirements	**Acceptable Solution**	No-through-road to meet clearance and turn around requirements of the guidelines.
	A3.4 Emergency access ways	**N/A**	
	A3.5a Perimeter roads	**Acceptable Solution**	The adjoining classified vegetation is Class G Grassland.
	A3.5b Fire service access routes	**N/A**	
	A3.6 Battle axes	**N/A**	

4: Water	A4.1 Water supply for structure plans	**N/A**	
	A4.2 Water supply for subdivision applications	**Acceptable Solution**	A hydraulic consultant must be engaged to ensure compliance with Water Corporation's Design Standard DS 63: Design and Construction Requirements for Water Reticulation Systems up to DN250.
	A4.3 Water supply for existing habitable building(s)	**N/A**	

Bushfire hazards

The subject site is bordered by predominantly cleared land and low-density development, with limited vegetation in the immediate vicinity. However, contiguous vegetation to the south-west and east presents a significant bushfire hazard due to canopy continuity and proximity. These areas pose an elevated risk of ember attack and potential fire spread toward the site. Overall, bushfire exposure is moderate, driven primarily by surrounding grassland.

Action Required

Compliance with this BMP, and therefore SPP 3.7, will require action before, during and after development. The items requiring implementation include:

- Undergrowth clearing by Developer of tree line along Jersey St/Wrigglesworth Dr to form excludable line of screening/wind break trees and maintained verges by council thereafter.
- APZ standards to be implemented and maintained until sale and then by subsequent owners throughout the life of the proposal.
- Roads to be constructed to the standard stated in this BMP.
- Hydrants to be installed to comply with Water Corporation requirements / if existing hydrants are
- deemed insufficient.
- Notices to be placed on titles.
- Public Open Space (POS) to be maintained to APZ standards.

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 Lot 46 Treeton Road, Cowaramup. The land is currently vacant and is to be subdivided into 38 lots ranging from 1,000m^2 to 2,237m^2.

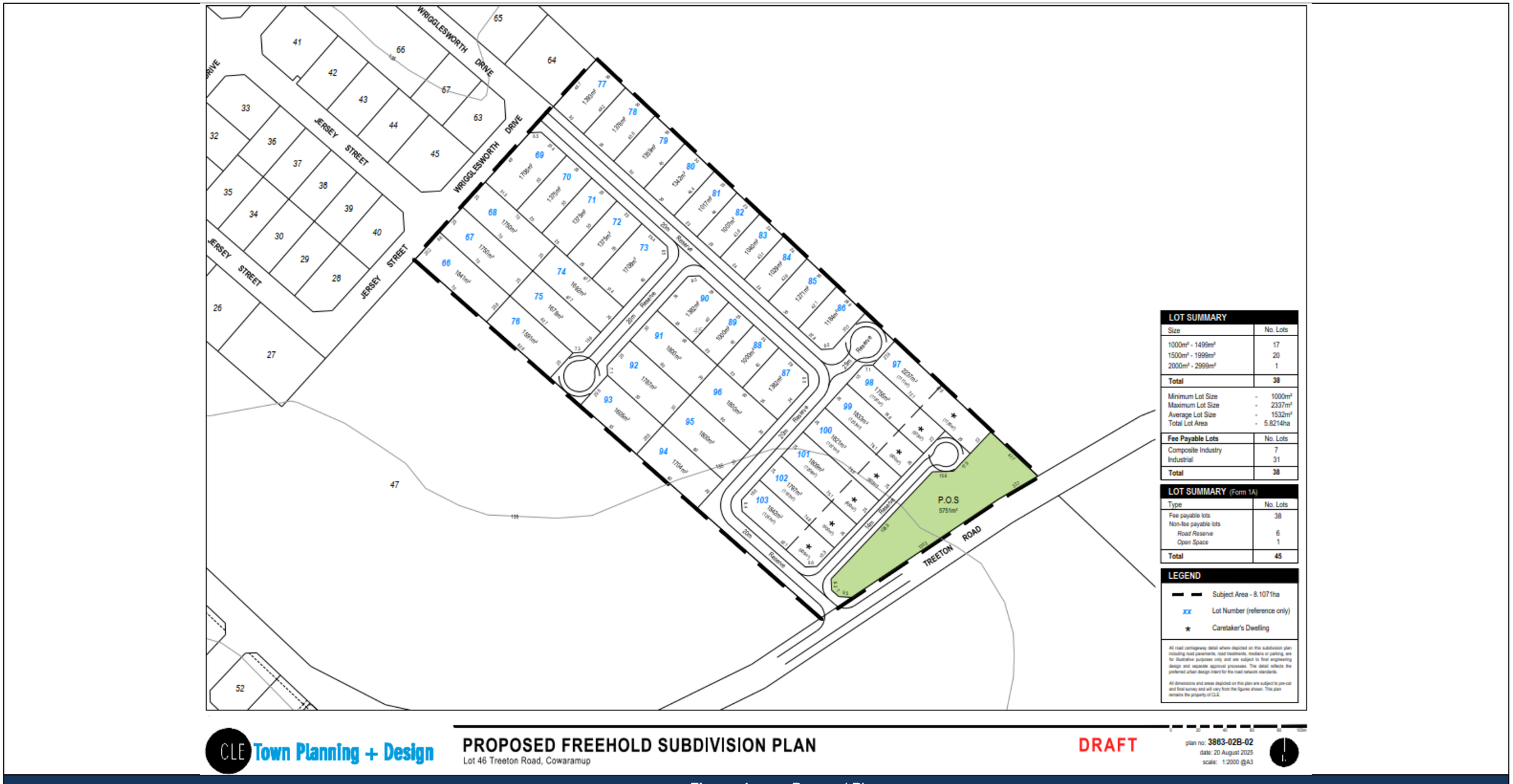


Figure: 1 *Proposal Plan*

Figure: 2 *Location*

Figure: 3 *Map of Bushfire Prone Area for Subject Site*

1.2 Environmental Considerations

SPP3.7 objective 5.4 prioritises the retention of native vegetation for biodiversity conservation, environmental protection and landscape amenity. To identify environmental, biodiversity and conservation values of the subject site, the site has been examined against the following databases as shown in Table 1.

Table 1: Assessment against environmental considerations

Object	Database	Identified	Details
Geomorphic Wetlands	DBCA-013 to DBCA-017, DBCA-019, DBCA-043, DBCA-044	No	Site not identified within database.
Ramsar sites (Wetland areas designated under the Ramsar Convention)	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	No	Site not identified within database.
Local government biodiversity/planning	-	No	-

The subject site has not been identified in the above databases.

1.3 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). This database shows no native vegetation on the site, as seen in the image below.

Figure: 4 *Map of Native Vegetation Extents for Subject Site*

1.4 Revegetation/landscape plan

No detailed landscaping or revegetation plans relating to this proposal have been provided.

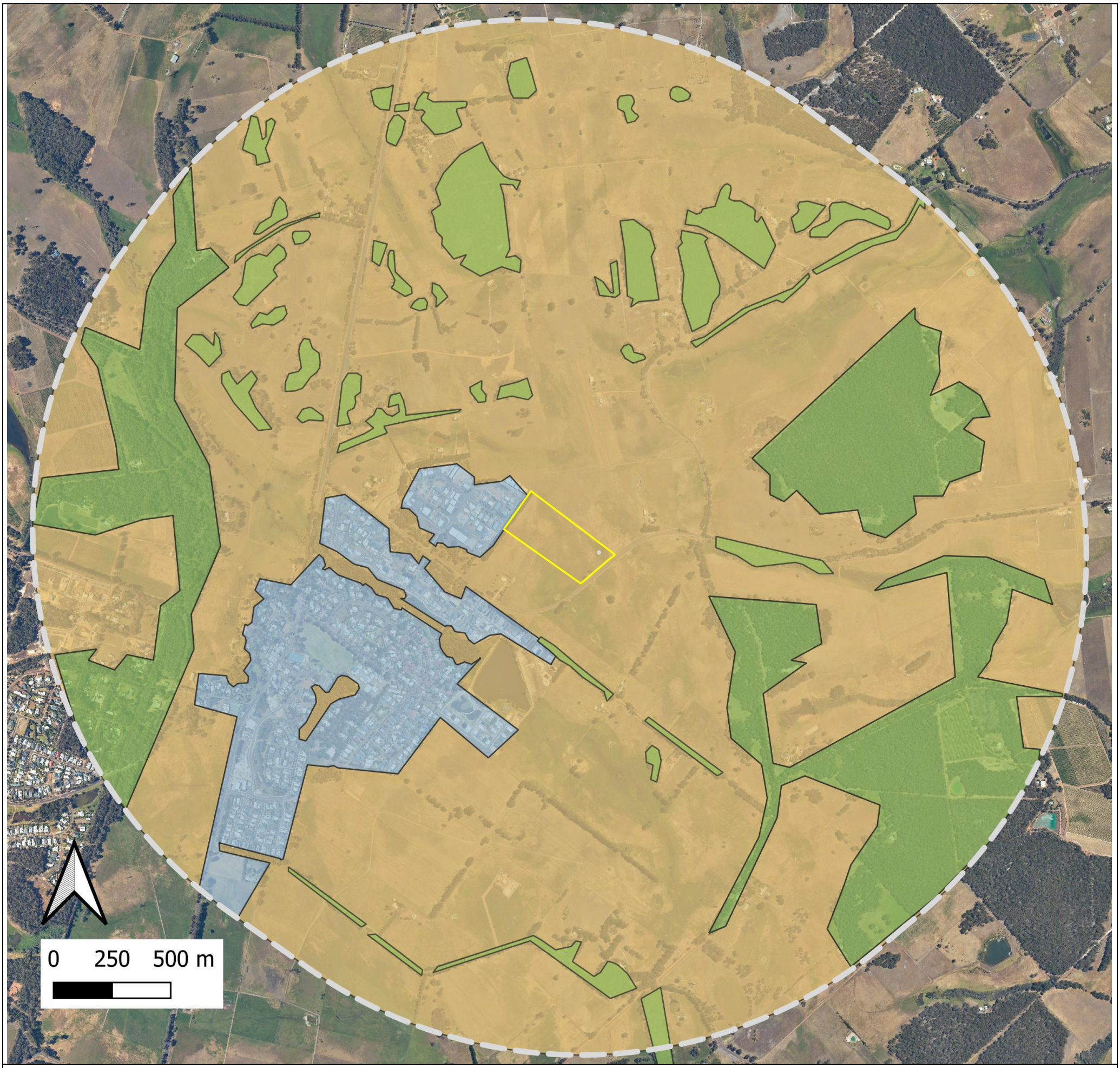
Any future landscaping for the site should comply with the APZ requirements of this report.

2 Broader Landscape Assessment

2.1 Broader Landscape Assessment (BLA)

The subdivision is located in Area 2, requiring a BLA. Vegetation patterns, road networks, and urban proximity have been assessed, with the figures shown below and the points collated in Table 2 below:

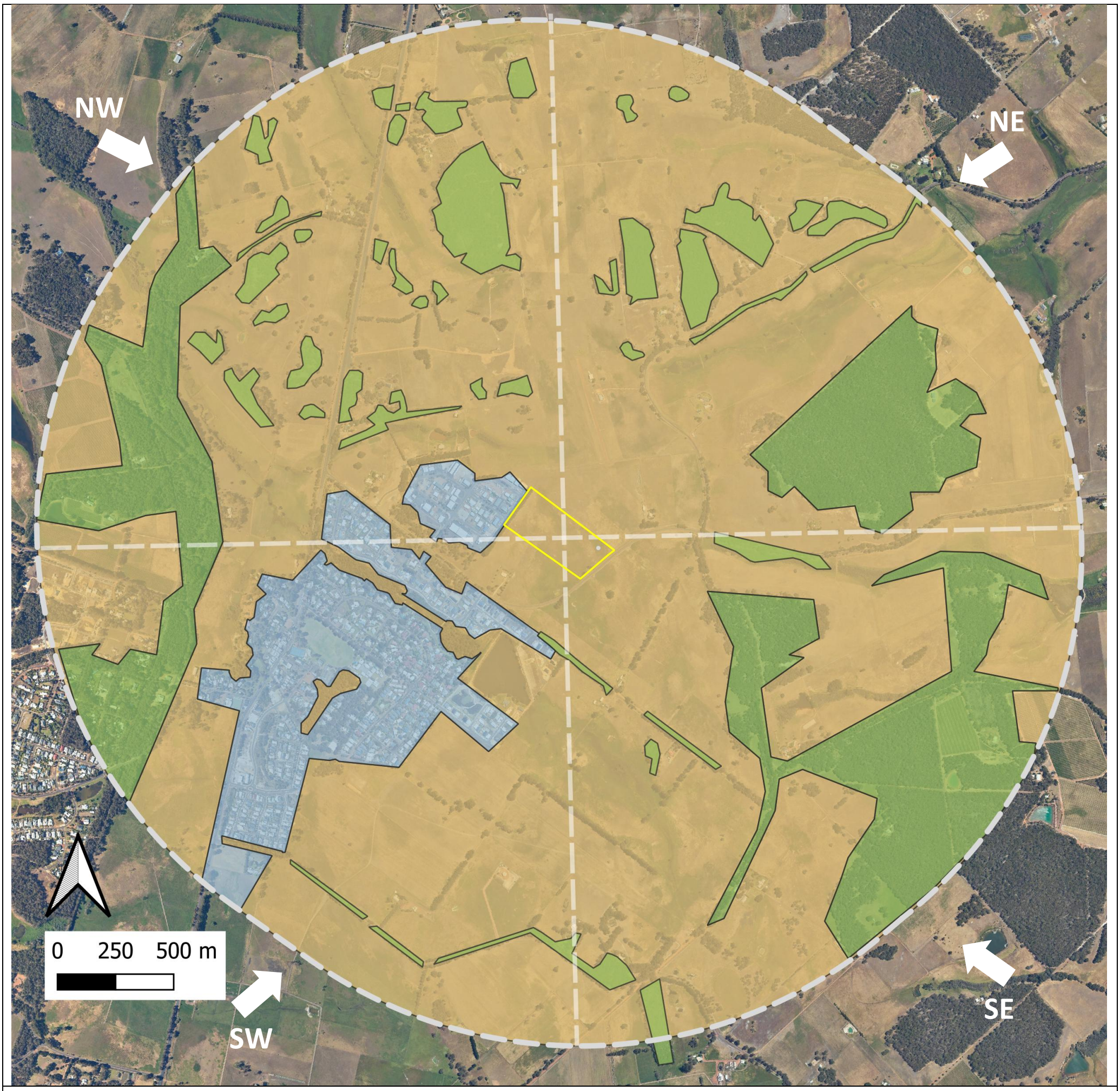
Criteria	5 points	2 points	1 point	Points for Proposal
Proximity of the proposal to a suitable destination is:	>10km	1-10km	<1km	2
The road pattern from the planning proposal to a suitable destination is:	Complex and indirect (cul-de-sacs, and/or multiple intersections)	Mixed road patterns	Simple and/or direct (limited intersections)	2
The predominant vegetation pattern is:	Large tracts of vegetation (contiguous vegetation)	A mosaic pattern of vegetation (e.g. vegetation within rural living precincts)	Cleared vegetation (e.g. clearing for residential zoned urban lots)	2
Exposure of the planning proposal to an identified external bushfire hazard (excluding Class G Grassland) is from:	Three or four aspects	Two aspects	From nil or one aspect only	2
Total Points				**8**
Broader Landscape Type Determined			Broader landscape type A (BLT A)	



The figure displays a desktop vegetation assessment using up-to-date aerial imagery, distinguishing between various vegetation classifications within the Bushfire Landscape Assessment (BLA) area. Low-threat and non-vegetated areas are outlined, alongside plots of unmanaged grassland (Class G Grassland) and other types of classified vegetation grouped together. Special attention is given to areas designated for revegetation or identified for conservation, biodiversity, or environmental protection. The figure also identifies undeveloped land with approved plans proposing a post-development BAL rating of BAL-LOW as future non-vegetated areas. Any coastlines or water bodies within or adjacent to the BLA area are marked as non-vegetated, as they act as natural barriers to fire spread.

Figure: 5 *BLA - Desktop Vegetation Assessment*

Lot 46 Treeton Road, Cowaramup	**Legend**				
The aerial imagery used was the best available at the time of review; however, it may no longer reflect the most current conditions.	Subject Land	2km area assessment	Low Threat vegetation	Unmanaged Grassland	All Other classified vegetation



The figure illustrates the Bushfire Landscape Assessment (BLA) area, divided into four intercardinal quadrants—Northeast, Southeast, Northwest, and Southwest. Each quadrant is assessed for bushfire hazards external to the proposed development, focusing on potential landscape-scale impacts on life, property, and infrastructure. The diagram highlights classified vegetation extents within each quadrant, allowing for a comprehensive evaluation of hazard intensity relative to the aspects of the terrain.

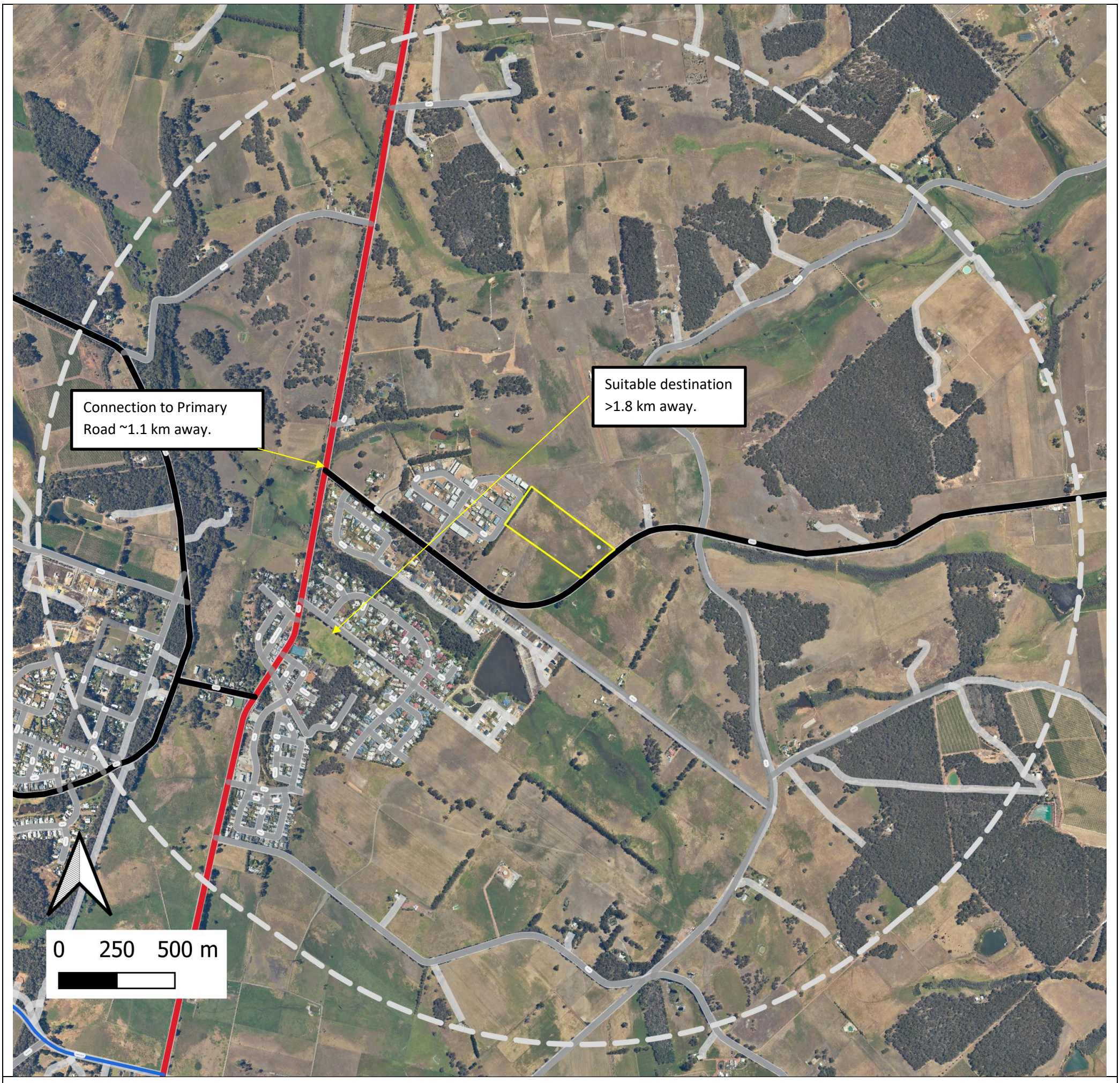
Figure: 6 *Assessment of Hazard Aspects by Intercardinal Quadrants*

Lot 46 Treeton Road, Cowaramup	**Legend**				
The aerial imagery used was the best available at the time of review; however, it may no longer reflect the most current conditions.	Subject Land	2km area assessment	Low Threat vegetation	Unmanaged Grassland	All Other classified vegetation

The figure shows the main vegetation patterns identified in the Bushfire Landscape Assessment (BLA) area. It highlights cleared vegetation, which includes residential and urban areas with low bushfire risk due to limited fuel. The mosaic pattern displays patches of Class G Grassland mixed with rural living areas, indicating varied fire behaviour. Lastly, the figure features large tracts of classified vegetation found in reserves or national parks, which present a higher risk for long fire runs and landscape-scale bushfires. Overall, the figure illustrates how different vegetation types affect bushfire hazards in the broader area.

Figure: 7 *Predominant Vegetation Pattern Assessment*

Lot 46 Treeton Road, Cowaramup	**Legend**				
The aerial imagery used was the best available at the time of review; however, it may no longer reflect the most current conditions.	Subject Land	2km area assessment	Cleared Vegetation	Mosaic Pattern	Large Tracts of classified vegetation



The figure provides a detailed assessment of the road network and vehicular access to designated destinations. It maps both existing and proposed routes, classifying them by road hierarchy and accessibility standard (sealed or unsealed) and indicating topographical influences. Spatial differentiation highlights areas with direct, extended-view access (e.g., grid or modified grid layouts) versus complex road patterns, including curved roads or cul-de-sacs. Vegetation impediments are annotated along each route, noting characteristics affecting reliability where known.

Figure: 8 *Identified Access Routes*

Lot 46 Treeton Road, Cowaramup	**Legend**					
The aerial imagery used was the best available at the time of review; however, it may no longer reflect the most current conditions.	Subject Land	2km area assessment	Primary Regional Road	Other Regional Road	Local Road	Access Road

3 Bushfire Assessment

3.1 Site Assessment

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

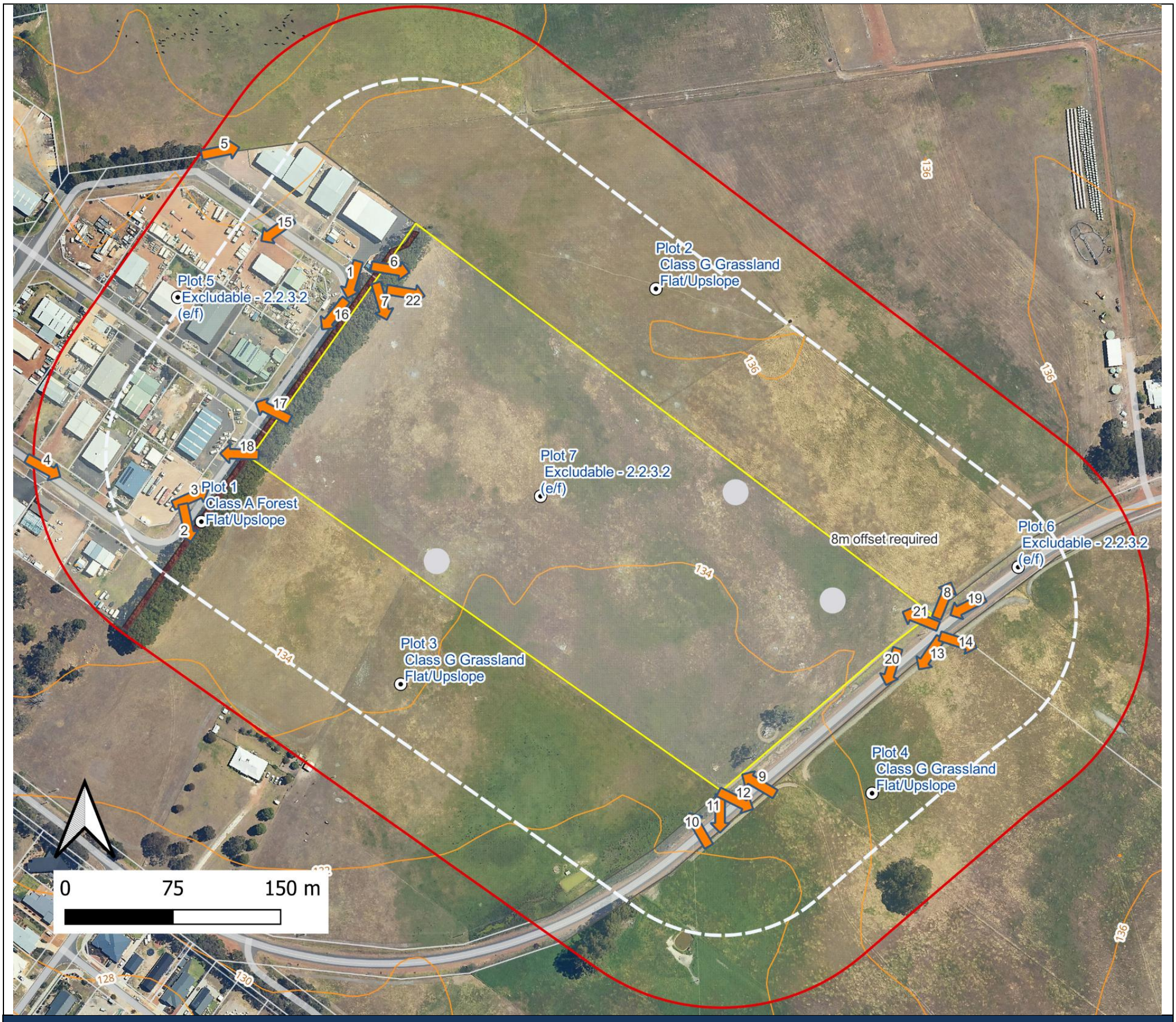


Figure: 9 *Vegetation Classification*

Lot 46 Treeton Road, Cowaramup	**Legend**											
The aerial imagery used was the best available at the time of review; however, it may no longer reflect the most current conditions.	Proposed Lot Boundary	Subject Land	150m area assessment	100m area assessment	Photo point	A Forest	B Woodland	C Shrubland	D Scrub	G Grassland	Excluded	Other

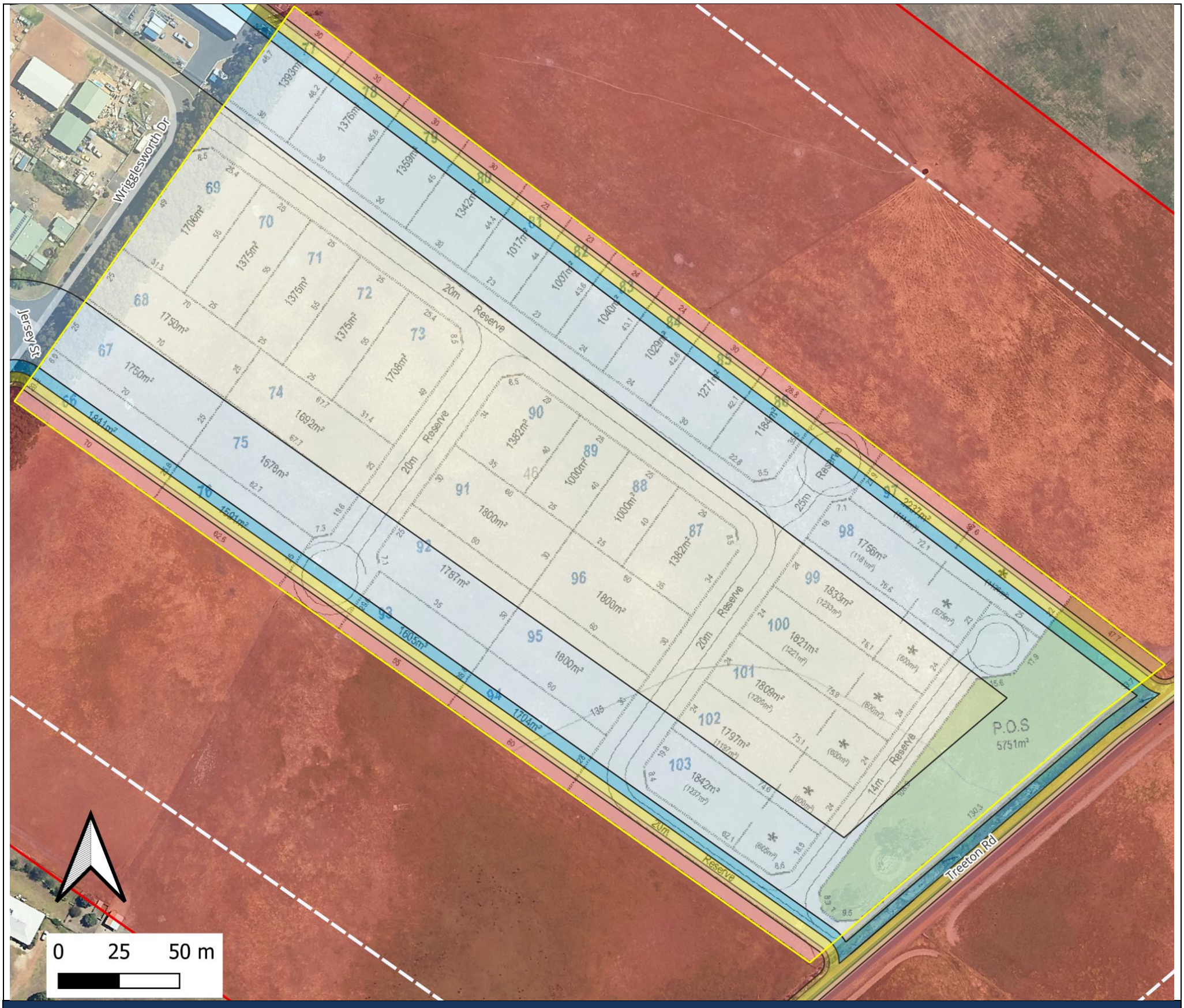


Figure: 10 *BAL Contours (Indicative – Attainable Post Development)*

Lot 46 Treeton Road, Cowaramup	**Legend**										
The aerial imagery used was the best available at the time of review; however, it may no longer reflect the most current conditions.	Proposed Lot Boundary	Subject Land	150m area assessment	100m area assessment	BAL FZ	BAL 40	BAL 29	BAL 19	BAL 12.5	BAL Low	Comments **This assumes all understorey of Plot 1 (see Figure 9) may be managed along its length.**

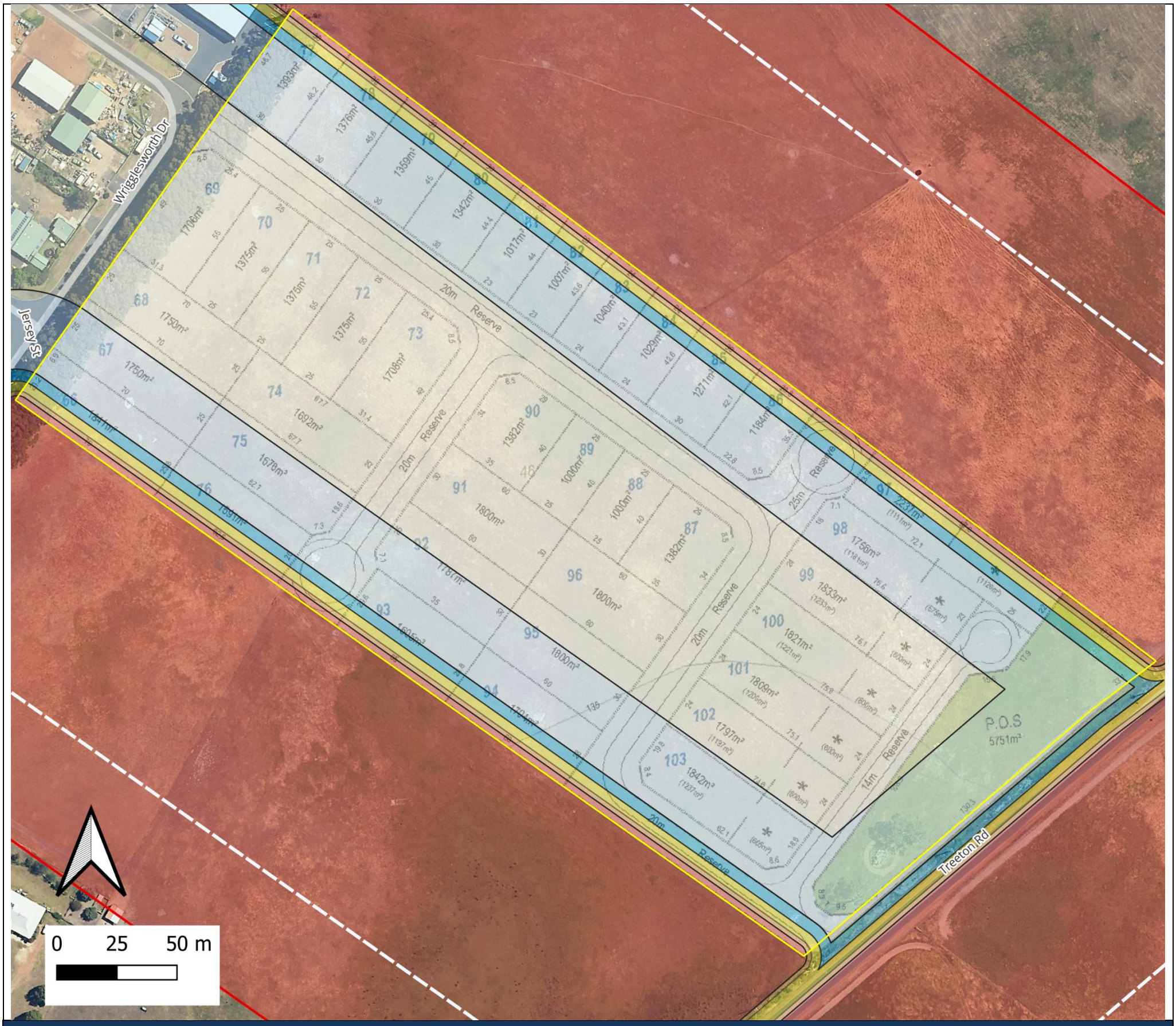


Figure: 11 *BAL Contours (Indicative – Attainable with Fire Break negotiations)*

Lot 46 Treeton Road, Cowaramup	**Legend**										
The aerial imagery used was the best available at the time of review; however, it may no longer reflect the most current conditions.	Proposed Lot Boundary	Subject Land	150m area assessment	100m area assessment	BAL FZ	BAL 40	BAL 29	BAL 19	BAL 12.5	BAL Low	Comments **This assumes 3m firebreaks can be negotiated with neighbouring landholders and all understorey of Plot 1 (see Figure 9) may be managed along its length.**

3.1 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.

Table 2: BAL Analysis

Plot:	1	**Effective Slope (°):**	Flat/Upslope	**Separation Distance (m):**	Varies – See Table
Vegetation Classification or Exclusion Clause:			Class A Forest - Open forest A-03		
Description / Justification for Classification:					
A single row of trees functions as a windbreak and screen. In sections, particularly near Jersey Street T-intersection, significant understorey growth is present, dominated by *Acacia* spp., with high fine fuel loads below. The vegetation does not connect with any other forested areas beyond the 150 m line, but undergrowth deems classification necessary.					

Photo ID: 1

Photo ID: 2

Photo ID: 3

Photo ID: 4

Plot:	2	Effective Slope (°):	Flat/Upslope	Separation Distance (m):	Varies – See Table
Vegetation Classification or Exclusion Clause:			Class G Grassland – Sown pasture G-26		
Description / Justification for Classification:					
Grassland to the north is dominated by sown pasture species maintained in a uniform, low structure. No overstorey or midstorey vegetation is present.					

Photo ID: 5

Photo ID: 6

Photo ID: 7

Photo ID: 8

Plot:	3	Effective Slope (°):	Flat/Upslope	Separation Distance (m):	Varies – See Table
Vegetation Classification or Exclusion Clause:			Class G Grassland – Sown pasture G-26		
Description / Justification for Classification:					
Grassland to south dominated by sown pasture species maintained in a uniform, low structure. No overstorey or midstorey vegetation is present, and no discernible slope observed on site.					

Photo ID: 9

Photo ID: 10

Plot:	4	Effective Slope (°):	Flat/Upslope	Separation Distance (m):	Varies – See Table
Vegetation Classification or Exclusion Clause:			Class G Grassland – Sown pasture G-26		
Description / Justification for Classification:					
Grassland to the east dominated by sown pasture species maintained in a uniform, low structure. Two isolated trees present, and no discernible slope observed on site. Background vegetation lies well beyond 150m assessment area.					

Photo ID: 11

Photo ID: 12

Photo ID: 13

Photo ID: 14

Plot:	5	Effective Slope (°):	N/A	Separation Distance (m):	N/A
Vegetation Classification or Exclusion Clause:			Excludable - 2.2.3.2 (e/f) Non-Vegetated Areas & Low Threat Vegetation		

Description / Justification for Classification:

Industrial area comprising hardstand surfaces, sealed roads, and buildings, with scattered isolated trees and minimal understorey. Managed verge vegetation, where present, consists of mown grass maintained to <100 mm in height and small garden beds. No continuous or unmanaged vegetation layers are evident, and the area is predominantly non-vegetated.

Photo ID: 15

Photo ID: 16

Photo ID: 17

Photo ID: 18

Plot:	6	Effective Slope (°):	N/A	Separation Distance (m):	N/A
Vegetation Classification or Exclusion Clause:			Excludable - 2.2.3.2 (e/f) Non-Vegetated Areas & Low Threat Vegetation		
Description / Justification for Classification:					
Rural road bordered by managed verge grasses cropped to <100 mm in height. Verge areas are maintained, with no presence of shrubs.					

Photo ID: 19

Photo ID: 20

Plot:	7	Effective Slope (°):	N/A	Separation Distance (m):	N/A
Vegetation Classification or Exclusion Clause:			Excludable - 2.2.3.2 (e/f) Non-Vegetated Areas & Low Threat Vegetation		
Description / Justification for Classification:					
Vegetation is consistent with adjacent grassland areas (Plots 2, 3, and 4), comprising uniform pasture species. However, the area is within a designated development footprint will be cleared cleared during construction activity and is therefore excluded.					

Photo ID: 21

Photo ID: 22

The Fire Danger Index (FDI) – 80 and Table 2.5 AS3959-2018 applied.

Potential Bushfire Impacts

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

Table 3.1: BAL Analysis

Plot	Vegetation Classification	Effective Slope
1	Class A - Forest	Flat/Upslope
2	Class G Grassland	Flat/Upslope
3	Class G Grassland	Flat/Upslope
4	Class G Grassland	Flat/Upslope
5	Excludable - 2.2.3.2 (e/f) Non-Vegetated Areas & Low Threat Vegetation	N/A
6	Excludable - 2.2.3.2 (e/f) Non-Vegetated Areas & Low Threat Vegetation	N/A
7	Excludable - 2.2.3.2 (e/f) Non-Vegetated Areas & Low Threat Vegetation	N/A

Table 3.3: BAL Analysis showing Determined and Indicative BAL with APZ requirements

Lot (s)	Vegetation Plot	Vegetation Classification	Effective Slope	Separation (m)	Highest (Determined) BAL Contour	Offset Required (m)	Indicative BAL Contour
66	3	Class G Grassland	Flat/Upslope	0	BAL – FZ	8*	BAL – 29
67	3	Class G Grassland	Flat/Upslope	>17 and <50	BAL – 12.5	-	BAL – 12.5
68-74	3	Class G Grassland	Flat/Upslope	>50	BAL – LOW	-	BAL – LOW
75	3	Class G Grassland	Flat/Upslope	>17 and <50	BAL – 12.5	-	BAL – 12.5
76	3	Class G Grassland	Flat/Upslope	0	BAL – FZ	8*	BAL – 29
77-86	2	Class G Grassland	Flat/Upslope	0	BAL – FZ	8*	BAL – 29
87-90	2	Class G Grassland	Flat/Upslope	>50	BAL – LOW	-	BAL – LOW
91-96	Not in BPA						
97	2	Class G Grassland	Flat/Upslope	0	BAL – FZ	8*	BAL – 29
98,99	2	Class G Grassland	Flat/Upslope	>17 and <50	BAL – 12.5	-	BAL – 12.5
100, 101	2	Class G Grassland	Flat/Upslope	>50	BAL – LOW	-	BAL – LOW
102, 103	3	Class G Grassland	Flat/Upslope	>17 and <50	BAL – 12.5	-	BAL – 12.5

***The required offset may be reduced if a formally recognised agreement is successfully negotiated for the installation and ongoing maintenance of firebreaks on neighbouring land. See A2.2 for more details.**

For commercial lots, all contain a buildable area that does not exceed 29 kW/m² (BAL-29). APZs and suitable boundary offsets will be required to ensure future developments are within this area at the time of individual DA.

4 Bushfire Hazard Issues

The subject site is bordered by predominantly cleared land and low-density development, with limited vegetation in the immediate vicinity. However, contiguous vegetation to the south-west and east presents a significant bushfire hazard due to canopy continuity and proximity. These areas pose an elevated risk of ember attack and potential fire spread toward the site. Overall, bushfire exposure is moderate, driven primarily by surrounding grassland.

5 Assessment against the Bushfire Protection Criteria Five – Structure plans and Subdivisions

An assessment against the bushfire protection criteria is required to be undertaken for any strategic planning proposal or subdivision that has or will, on completion, have a bushfire hazard level above 'Low' or a BAL rating above BAL LOW. The following section outlines the steps required to ensure this proposal meets the necessary compliance standards

Element 1: Location

The proposal is within Area 2 and has been identified as Broader Landscape A (BLT A) within the Broader Landscape Assessment conducted within this report. Therefore, the proposal meets the acceptable solution of Element 1.

Element 2: Siting and design of development

A.2.1a: Siting and design

Each proposed building lot contains a sufficient development site(s) that can achieve a radiant heat impact not exceeding 29 kW/m² (BAL-29).

A2.2 Asset Protection Zone (APZ)

On the proposed plans, select lot require a setback off the boundary, as detailed in Table 3.3 of this report, to achieve BAL–29:

77-86, 97	8 m off the north boundary*
65, 76	8 m off the south boundary*

***The required offset is likely to be reduced if a formally recognised agreement is successfully negotiated for the installation and ongoing maintenance of firebreaks on neighbouring land. For example, a 3 m wide firebreak on the neighbouring lot may be negotiated in accordance with the local firebreak notice. For this assessment, a worst-case scenario has been applied; however, the BAL will need to be re-assessed at the time of construction to confirm the actual bushfire level if such an agreement is implemented.**

All other lots do not require additional setbacks and are to be maintained to APZ standards, including all grass being maintained at less than 100mm tall, by the developer until sale and then by new owners following that. All landscaping within lots and verges to be managed as per Table 9 of the guidelines, extract shown in Appendix B.

For further information, see **Appendix A: Spatial Representation of proposed risk management measures** of this report. The APZ is to be managed as per Table 9: *Asset Protection Zone (APZ) technical requirements* of the Guidelines (see Appendix B).

A2.3 Clearing of native vegetation

The subdivision does not require the clearing of native vegetation as offsets achieve a suitable buildable area.

Element 3: Vehicular Access

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 of Appendix B.3, Table 10, extract shown below. With no areas of noncompliance identified.

Table 10: Vehicular access technical requirements

	1		2		3		4		5	
TECHNICAL REQUIREMENTS	**PERIMETER ROADS**		**PUBLIC ROADS**		**EMERGENCY ACCESS WAY[3]**		**FIRE SERVICE ACCESS ROUTE[3]**		**BATTLE-AXE & PRIVATE DRIVEWAYS[1]**	
MAP OF BUSH FIRE PRONE AREAS DESIGNATION	**Area 2**	**Area 1**	**Area 2**	**Area 1**	**Area 2**	**Area 1**	**Area 2**	**Area 1**	**Area 2**	**Area 1**
Minimum horizontal clearance (metres)	12	8	See note 5		10	6	10	6	6	
Minimum vertical clearance (metres)	4.5									
Minimum weight capacity (tonnes)	15									
Maximum grade unsealed road[2]	See note 5		See note 5		1:10 (10% or 6°)					
Maximum grade sealed road[2,4]					1:7 (14.3% or 8°)					
Maximum average grade sealed road					1:10 (10% or 6°)					
Minimum inner radius of road curves (metres)					8.5					

Notes:

[1] Driveways and battle-axe legs to comply with the Residential Design Codes and Development Control Policy 2.2 Residential Subdivision where not required to comply with the widths in this Appendix or the Guidelines.

[2] Dips must have no more than a 1 in 8 (12.5% - 7.1 degrees) entry and exit angle.

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

[4] For sealed roads only the maximum grade of no more than 1 in 5 (20 per cent) (11.3 degrees) for no more than 50 metres is permissible, except for short constrictions to 3.5 metres for no more than 30 metres in length where an obstruction cannot be reasonably avoided or removed.

[5] As outlined in the Institute of **Public Works Engineering Australasia (IPWEA) subdivision guidelines, Liveable Neighbourhoods, Austroads Standards** Main Roads standard, supplement, policy or guideline and/or any applicable or relevant local government standard or policy.

A3.2 Access routes

The subdivision is within an area classified as 'Area 2', therefore, 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 west into the adjoining industrial estate, continuing south to connect with Treeton Road and then east to Bussell Highway, which provides onward access south to a sporting field located within a developed urban area.
• Second access is east along Treeton Road, traversing open farmland and passing extensive tracts of forested land before reaching more distant destinations.
Egress via the industrial estate and Bussell Highway is preferred, as it provides faster access to low-risk urban areas and avoids prolonged travel alongside forested vegetation. The western route via Treeton Road presents increased exposure to bushfire hazards due to the surrounding farmland and forested corridors.

First Access/Egress Option
Second Access/Egress Option

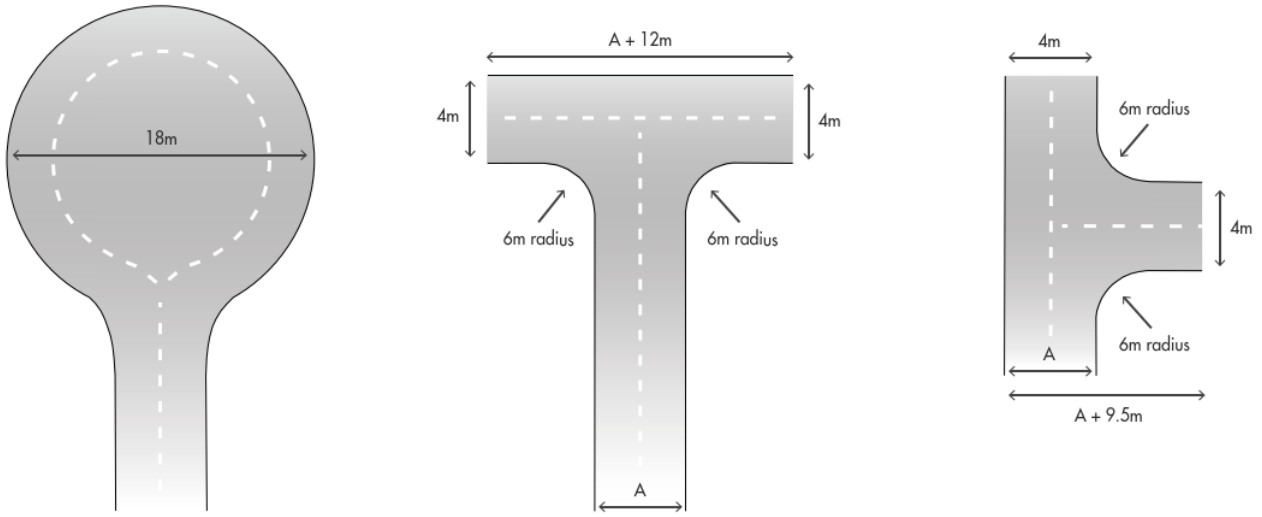
A3.3a No-through-roads

The proposal has two no-through roads but are less than 200 metres in length from the proposed lot(s) boundary to an intersection where two-way access is provided. This cannot be avoided due to demonstrated site constraints (commercial development expanding into retired pastureland but surrounded by undeveloped and active farmland).

A3.3b No-through-road requirements

The no-through roads must meet the requirements of a public road (Appendix B.3, Table 10, Column 2) and have a turn-around area/head as shown in Figure 30 of the Guidelines as reproduced below:

Figure 30: Design requirements for a turn-around area



A3.4 Emergency access way – Not Applicable

A3.5a Perimeter roads – Not Applicable

A perimeter road is not required as the adjoining classified vegetation is Class G Grassland.

A3.5b Fire service access route – Not Applicable

A3.6 Battle-Axe Legs – Not Applicable

Element 4: Water

A4.1 Water supply for structure plans – Not Applicable for subdivisions

A4.2 Provision of water for firefighting purposes

The existing hydrants are inadequate to support the new subdivision, necessitating the installation of additional hydrants. A hydraulic consultant must be engaged to ensure compliance with Water Corporation's Design Standard DS 63: Design and Construction Requirements for Water Reticulation Systems up to DN250.

A4.3 Water supply for existing habitable building(s) – Not Applicable

6 Implementation and Ongoing Maintenance Responsibilities

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	
1	Undergrowth clearing of tree line along Jersey St/Wrigglesworth Dr to form excludable line of screening/wind break trees.	Prior to issue of titles
2	Establish roads and fire service access routes to the required surface condition and clearances	Prior to issue of titles
3	Install hydrant connections in accordance with Water Corporation's No. 63 Water Reticulation Standard.	Prior to issue of titles
4	Place Section 165 notice on title for all lots within a bushfire prone area.	Prior to issue of titles
	Council	
	Maintain the verge vegetation to Asset Protection Zone (APZ) standards along Jersey St/Wrigglesworth Dr to form excludable line of screening/wind break trees.	Ongoing
	Establish maintenance agreements to manage Public Open Space (POS) as marked on plans to APZ standards in perpetuity.	Ongoing

The following items, as numbered in the above table, are subject to a Clearance Certificate issued by the Bushfire Consultant:

Items 1, 2 and 3.

6.1 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.

7 General References

Office of Bushfire Risk Management (OBRM). (2020). *Bushfire risk management (BRM) plan guidelines*. Retrieved October 2020.

Standards Australia. (2024). *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*.

Water Corporation. (2018). *Design standard DS 63: Water reticulation standard design and construction requirements for water reticulation systems up to DN250 (Version 3, Revision 14)*. Water Corporation.

Western Australian Planning Commission. (2024). *State planning policy 3.7 Bushfire*. State of Western Australia.

Western Australian Planning Commission. (2024). *Planning for bushfire guidelines*. State of Western Australia.

8 Online references

Landgate. (2024). Map Viewer Plus. Government of Western Australia. Retrieved from https://map-viewer-plus.app.landgate.wa.gov.au/index.html

Office of Bushfire Risk Management (OBRM). (2024). Map of Bush Fire Prone Areas. Retrieved from https://maps.slip.wa.gov.au/landgate/bushfireprone/

WA Local Government Association (WALGA). Environmental Planning Tool. Retrieved from https://pbp.walga.asn.au/Tools/EnvironmentalPlanningTool.html

9 Acknowledgement of Country

We acknowledge the traditional custodians of the land on which we operate, the Noongar people. We pay our respects to their elders, past, present, and emerging, and recognise their enduring connection to the land and environment. As we conduct our bushfire management and reporting, we honour their legacy and their stewardship of our natural landscapes.

10 Appendices

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

Lot 46 Treeton Road, Cowaramup

NOTES

Asset Protection Zone (APZ)

APZ requirements:

APZ standards to be implemented across entire site and maintained until sale, and then by subsequent owners throughout the life of the proposal. Public Open Space (POS) to be maintained to APZ standards.

The minimum width for the APZ is the distance required to meet the BAL-29 setback. The land between the development and the classified vegetation is to be maintained as an APZ (see *Appendix B: APZ technical requirements* for full details).

- Trees, shrub & scrub >6m in height are to be setback a minimum of 6m for the building with no branches overhanging
- Shrub & scrub <6m in height are to be setback a minimum of 3 m from the building and not planted in clumps greater than 5m2.
- Grass is to be maintained less than 100 mm in height

Water Supply

A hydraulic consultant must be engaged to ensure compliance with Water Corporation's Design Standard DS 63: Design and Construction Requirements for Water Reticulation Systems up to DN250.

Access

All public roads, including no-through roads, must meet the requirements of a public road (Appendix B.3, Table 10, Column 2) and no-through roads must have a turn-around area/head as shown in Figure 30 of the Guidelines.

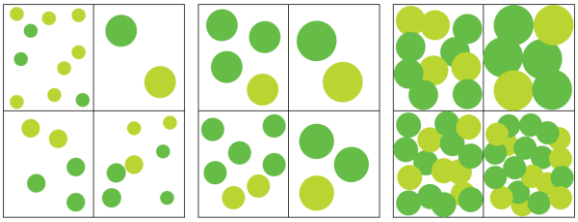
Figure: 12 *Spatial Representation of proposed risk management measures.*

APZ		H	Hydrant
Subject Land			Indicative Roads with turn-around

08 9555 9444
BAL@bushfiresmart.com.au
Address: 71 Allnutt Street, Mandurah, 6210
Postal: PO Box 4160, Mandurah North, WA, 6210

Appendix B: APZ technical requirements

The APZ is to be managed as per the extract from *Table 9: Asset Protection Zone (APZ) technical requirements* (WAPC 2024).

Object	Requirement
Fences within the APZ	Should be constructed from non-combustible materials (for example, iron, brick, limestone, metal post and wire, or bushfire-resisting timber referenced in Appendix F of AS 3959).
Fine fuel load (combustible, dead vegetation matter less than 6 mm in thickness)	• Should be managed and removed on a regular basis to be maintained as low threat vegetation • Should be maintained at less than two tonnes per hectare (on average) • Mulches should be non-combustible such as stone, gravel, shells, rock or crushed mineral earth or wood mulch more than five millimetres in thickness.
Trees* (more than 6 metres in height)	• Trunks at maturity should be a minimum distance of six metres from all elevations of the building • Branches at maturity should not touch or overhang a building or powerline • Lower branches and loose bark should be removed to a height of two metres above the ground and/or surface vegetation. • Canopy cover within the APZ should be less than 15 per cent of the total APZ area • Tree canopies at maturity should be at least 5 m apart to avoid forming a continuous canopy. Stands of existing mature trees with interlocking canopies may be treated as an individual canopy provided the total canopy cover within the APZ does not exceed 15 per cent and is not connected to the tree canopy outside the APZ. **Tree canopy cover – ranging from 15 to 70 per cent at maturity**  15% 30% 70%
Shrub* and scrub* (0.5 metres to 6 m in height). Shrub and scrub more than 6 m in height are to be treated as trees.	• Should not be located under trees or within three metres of buildings. • Should not be planted in clumps more than 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 m in height. Ground covers more than 0.5 metres in height are to be treated as shrub)	• Can be planted under trees but must be maintained to remove dead plant material, as prescribed in 'Fine fuel load' above. • Can be located within two metres of a structure, but three metres from windows or doors if more than 100 millimetres in height.
Grass	• Grass should be maintained at a height of 100 mm or less, at all times. • Wherever possible, perennial grasses should be used and well-hydrated with regular application of wetting agents and efficient irrigation
Defendable space	Within three metres of each wall or supporting post of a habitable building, the area is kept free from vegetation, but can include ground covers, grass and non-combustible mulches as prescribed above.
LP Gas Cylinders	• Should be located on the side of a building furthest from the likely direction of a bushfire or on the side of a building where surrounding classified vegetation is upslope, at least one metre from vulnerable parts of a building. • The pressure relief valve should point away from the house. • No flammable material within six metres from the front of the valve. • Must sit on a firm, level and non-combustible base and be secured to a solid structure.