




Bushfire Attack Level (BAL) Assessment Report

Site details			
Address: Stage 16 Beenyup Grove Estate (Lot 31 and 32 Doley Rd)			
Suburb: Byford		State: Western Australia	
Local Government Area: Shire of Serpentine-Jarrahdale			
Description of Building Works: Construction of Class 1a dwellings			
Report details			
Project number	A25.046	Report version	1
Assessment date	26/02/2026	Report date	18/03/2026
Author	Hannah Witherspoon Bushfire Consultant (BPAD L1-68474)	Review	Daniel Panickar Senior Principal Bushfire Consultant (BPAD L3-37802) 

Site Assessment and Site Plan

The assessment of 41 lots within Stage 16 of Beenyup Grove Estate (the subject site) was undertaken on 26/02/2026 for the purpose of determining the Bushfire Attack Level (BAL) in accordance with *Australian Standard AS 3959: 2018 Construction of Buildings in Bushfire Prone Areas* (AS 3959: 2018; SA, 2018) Simplified Procedure (Method 1). All 41 lots occur within a designated bushfire prone area (Area 2) and have been assessed against AS 3959: 2018. An overview of the subject site is presented in Figure 1.

Vegetation Classification

All vegetation within 100 m of the subject site was classified in accordance with Clause 2.2.3 of AS 3959: 2018. Each distinguishable vegetation class with the potential to determine the BAL is identified in Table 1 and presented in Figure 2.

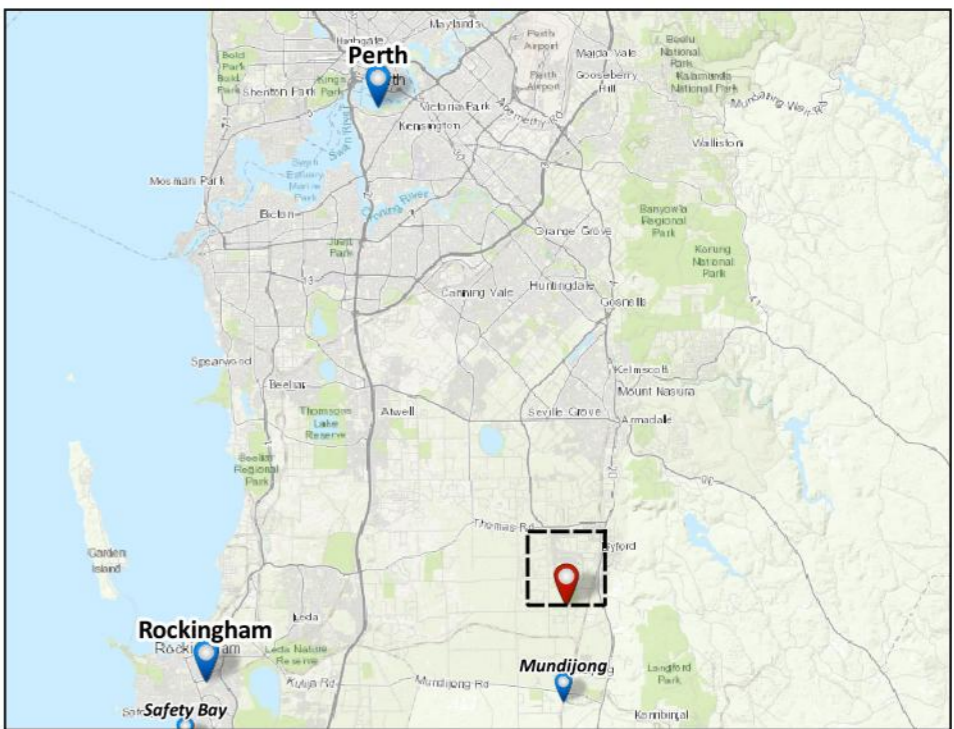
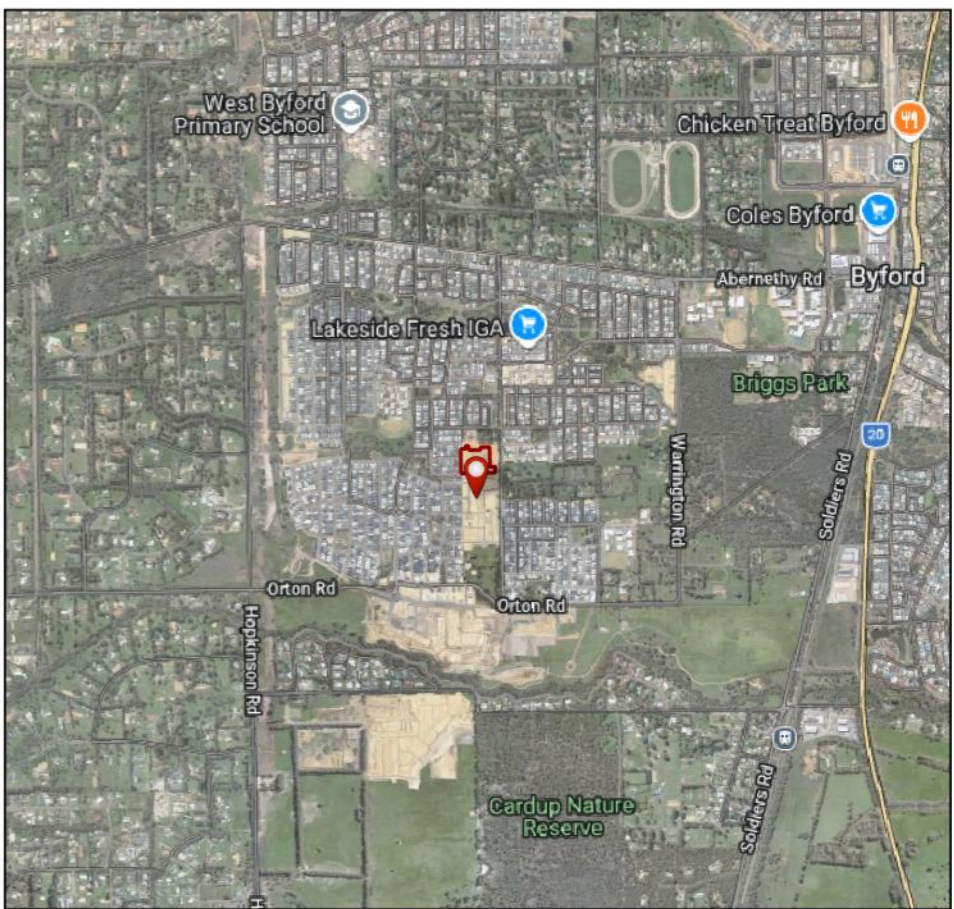


Figure 1: Site Overview

SCALE 1:2,300	SHEET SIZE A3 COLOUR
COORDINATE REFERENCE SYSTEM GDA2020 / MGA zone 50	
DATA SOURCE NEARMAP (Jan 2026)	




PROJECT/REPORT NAME Bushfire Attack Level (BAL) Report Stage 16 Beenyup Grove, Byford WA 6122	
CLIENT Parcel Property	
PROJECT NUMBER A25.046	VERSION 0
DRAWN BY / REVIEWED BY SC/HW	DATE 18/3/2026

Legend	
	Subject Site
	Buffer 100m
	Buffer 150m
	Road
	Lot Boundary

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 Level 3/25 Prowse St, West Perth WA 6005
 western.com.au

Table 1: Vegetation Classification

Plot 1	Class B Woodland
<p>Photo 1 Eucalyptus trees up to 15 m in height with an overstorey canopy cover up to 30 % and a grass-dominated understorey. This vegetation was generally observed in adjacent rural residential properties. The plot contained occasional patches of denser canopy cover however fire behaviour is considered most likely to represent Class B Woodland.</p> <p>The slope under this vegetation was assessed to be flat/upslope.</p>	
Plot 2	Class G Grassland
<p>Photo 2 Grass in rural residential properties with an average height greater than 100 mm. The overstorey contains occasional trees which comprise less than 10 % of the overall canopy cover.</p> <p>The slope under this vegetation was assessed to be flat/upslope.</p>	
Plot 3	Excluded - clause 2.2.3.2 (e)
<p>Photo 3 Cauthern Grove, a residential sealed road west of the subject site. These non-vegetated areas have been excluded in accordance with Clause 2.2.3.2 (e) of AS 3959: 2018.</p>	



Plot 3 Excluded - clause 2.2.3.2 (e)

Photo 4

Perrone Avenue, a residential sealed road North of the subject site.

These non-vegetated areas have been excluded in accordance with Clause 2.2.3.2 (e) of AS 3959: 2018.



Plot 3 Excluded - clause 2.2.3.2 (e)

Photo 5

Broadhurst Street was observed as a sealed roadway undergoing construction activities at the time of the site inspection, with adjacent land in Stage 16 undergoing earthworks and surface preparation to facilitate residential development.

These non-vegetated areas have been excluded in accordance with Clause 2.2.3.2 (e) of AS 3959: 2018.



Plot 3 Excluded - clause 2.2.3.2 (e)

Photo 6

Cleared land designated for future development situated north of the subject site.

These non-vegetated areas have been excluded in accordance with Clause 2.2.3.2 (e) of AS 3959: 2018.



Plot 4 Excluded - clause 2.2.3.2 (f)

Photo 7

Parkland containing scattered trees (less than 10 % of the overall canopy cover), shrubs and grasses under 500 mm in height. The parkland was observed to be maintained in a low-threat state. This vegetation is regarded as low-threat and has been excluded in accordance with Clause 2.2.3.2 (f) of AS 3959: 2018.



Plot 4 Excluded - clause 2.2.3.2 (f)

Photo 8

Residential home with maintained lawns and landscaped gardens incorporating tropical species such as frangipani and yucca, with a stoney ground cover. This vegetation is regarded as low-threat and has been excluded in accordance with Clause 2.2.3.2 (f) of AS 3959: 2018.



Plot 4 Excluded - clause 2.2.3.2 (f)

Photo 9

A single row of trees. This vegetation is regarded as low-threat and has been excluded in accordance with Clause 2.2.3.2 (f) of AS 3959: 2018.



Plot 4

Excluded - clause 2.2.3.2 (f)

Photo 10

Grass between the subject site and other suburban development with an average height greater than 100 mm and occasional trees comprising less than 10 % of the foliage cover. While the grass was unmanaged at the time of assessment, this patch has been excluded as it is less than 1 ha in size and is located more than 100 m from the nearest classifiable vegetation.

This vegetation is regarded as low-threat and has been excluded in accordance with Clause 2.2.3.2 (f) of AS 3959: 2018.



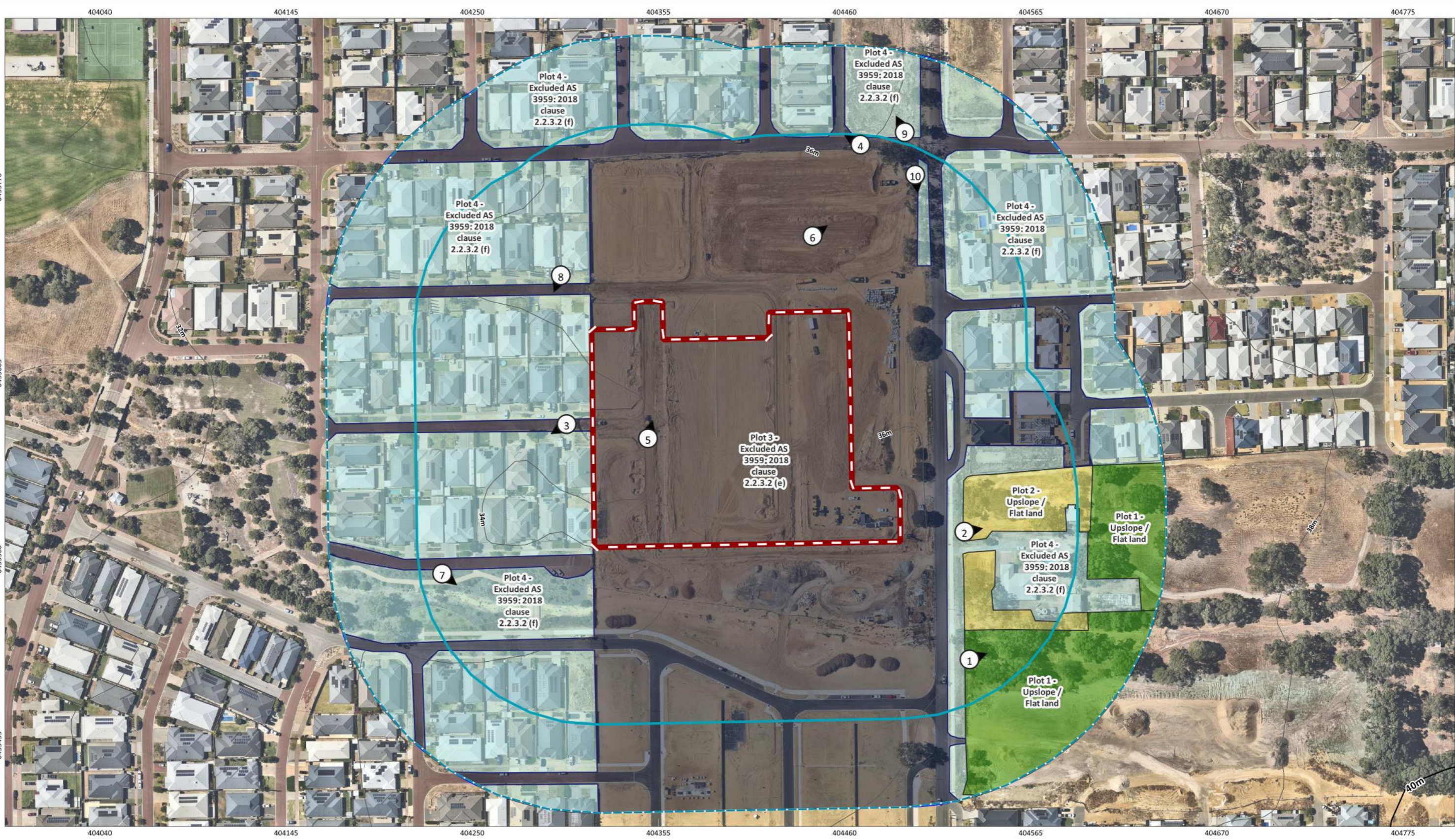


Figure 2: Vegetation Classification

		PROJECT/REPORT NAME Bushfire Attack Level (BAL) Report Stage 16 Beenyp Grove, Byford WA 6122		Legend Subject Site Buffer 100m Buffer 150m	Photos 2m Contours (DPIRD-072) 10m	Vegetation Classification Class B - Woodland Class G - Grassland Excluded AS 3959: 2018 2.2.3.2 (e) Excluded AS 3959: 2018 2.2.3.2 (f)	 WESTERN ENVIRONMENTAL <small>Western Environmental Pty Ltd 08 6244 2310 enquiries@western.com.au Level 3/25 Provese St, West Perth WA 6005 western.com.au</small>
	SCALE 1:2,100	SHEET SIZE A3 COLOUR	CLIENT Parcel Property				

Relevant Fire Danger Index

The Fire Danger Index for this site has been determined in accordance with Table 2.1 of AS 3959: 2018 and is presented in Table 2.

Table 2: Fire Danger Index (FDI)

Relevant Fire Danger Index			
FDI 40 <input type="checkbox"/>	FDI 50 <input type="checkbox"/>	FDI 80 <input checked="" type="checkbox"/>	FDI 100 <input type="checkbox"/>
<i>Table 2.4.5</i>	<i>Table 2.4.4</i>	<i>Table 2.4.3</i>	<i>Table 2.4.2</i>

Potential Bushfire Impacts

The potential bushfire impact (presented as BAL contours) to the subject site from each of the identified vegetation plots are outlined below in Table 3.

Table 3: Method 1 BAL Calculation (BAL Contours)

Plot	Vegetation classification	Effective slope	Separation distances required (m)				
			BAL-FZ	BAL-40	BAL-29	BAL-19	BAL-12.5
1	Class B Woodland	All upslopes and flat land (0 degrees)	<10	10-<14	14-<20	20-<29	29-<100
2	Class G Grassland	All upslopes and flat land (0 degrees)	<6	6-<8	8-<12	12-<17	17-<50
3	Excluded - clause 2.2.3.2 (e)	-	No separation distances required - BAL-LOW				
4	Excluded - clause 2.2.3.2 (f)	-	No separation distances required - BAL-LOW				

Determined Bushfire Attack Level (BAL)

The determined Bushfire Attack Level (highest BAL) for the lots has been determined in accordance with Clause 2.2.6 of AS 3959: 2018. Relevant data from the subject site assessment is shown in Figure 3 and Table 4.



Table 4: BAL Assessment Summary

Affected Lot	BAL Rating	Construction sections to be consulted in AS 3959: 2018
1059	BAL-LOW	4
1060	BAL-LOW	4
1061	BAL-LOW	4
1062	BAL-LOW	4
1063	BAL-LOW	4
1064	BAL-LOW	4
1065	BAL-LOW	4
1066	BAL-LOW	4
1067	BAL-LOW	4
1070	BAL-LOW	4
1071	BAL-LOW	4
1072	BAL-LOW	4
1073	BAL-LOW	4
1074	BAL-LOW	4
1075	BAL-LOW	4
1076	BAL-LOW	4
1077	BAL-LOW	4
1078	BAL-LOW	4
1079	BAL-LOW	4
1080	BAL-LOW	4
1081	BAL-LOW	4
1081	BAL-LOW	4
1082	BAL-LOW	4
1082	BAL-LOW	4
1083	BAL-LOW	4
1084	BAL-LOW	4
1085	BAL-LOW	4
1086	BAL-LOW	4
1087	BAL-LOW	4
1115	BAL-12.5	3 and 5
1116	BAL-12.5	3 and 5



Affected Lot	BAL Rating	Construction sections to be consulted in AS 3959: 2018
1117	BAL-12.5	3 and 5
1118	BAL-12.5	3 and 5
1119	BAL-LOW	4
1120	BAL-LOW	4
1121	BAL-LOW	4
1122	BAL-LOW	4
1123	BAL-LOW	4
1124	BAL-LOW	4
1125	BAL-LOW	4
1126	BAL-LOW	4

Note: This BAL rating is based on the information current at the date of this document and is valid for 12 months.



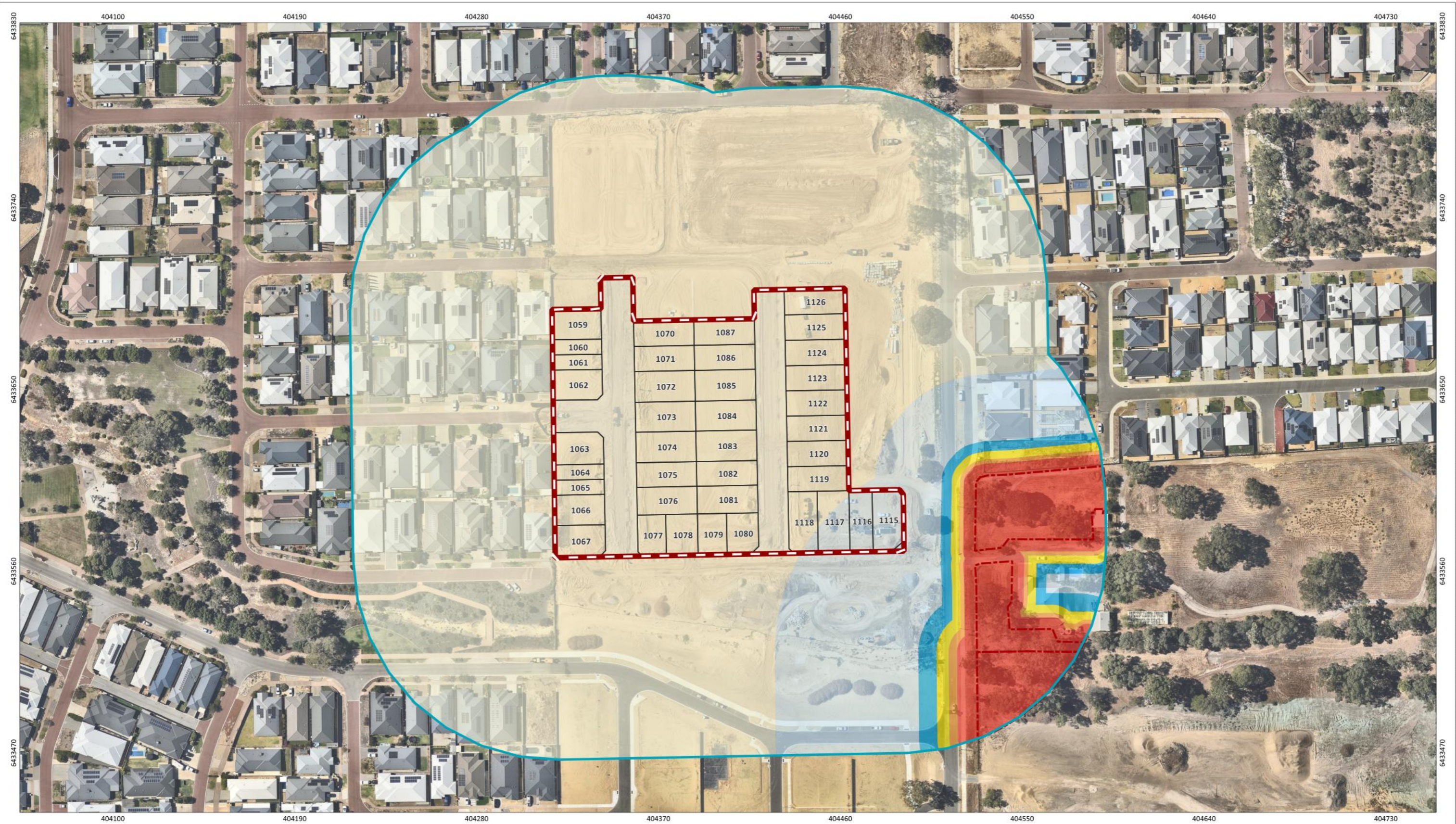


Figure 3: Bushfire Attack Level (BAL) Contours

		PROJECT/REPORT NAME Bushfire Attack Level (BAL) Report Stage 16 Beenyup Grove, Byford WA 6122		Legend Subject Site Buffer 100m Lot Boundary Road Bushfire Hazard Interface		Bushfire Attack Level (BAL) BAL-FZ BAL-40 BAL-29 BAL-19 BAL-12.5 BAL-LOW		 WESTERN ENVIRONMENTAL <small>Western Environmental Pty Ltd 08 6248 2310 enquiries@western.com.au Level 3/25 Prosser St, West Perth WA 6005 western.com.au</small>
SCALE 1:1,800	SHEET SIZE A3 COLOUR	CLIENT Parcel Property		VERSION 0				
COORDINATE REFERENCE SYSTEM GDA2020 / MGA zone 50		PROJECT NUMBER A25.046	DATE 18/3/2026					
DATA SOURCE NEARMAP (Jan 2026)		DRAWN BY / REVIEWED BY SC/HW						

Appendix A

Additional Information / Advisory Notes



This assessment was undertaken as per AS 3959: 2018. It is important that the current version of AS 3959, is consulted for construction purposes.

This BAL rating is based on the information current at the date of this letter and is valid for 12 months from the date of this letter.

Bushfire Attack Level (BAL) as set out in the Australian Standard 3959 Construction of Buildings in Bushfire-Prone Areas (AS 3959), as referenced in the Building Code of Australia.

Bushfire Attack Level (BAL)	Classified vegetation within 100 m of the subject site and radiant heat flux exposure thresholds	Description of predicted bush fire attack and levels of exposure	Construction Section as per AS 3959
BAL-LOW		There is insufficient risk to warrant specific construction requirements.	4
BAL-12.5	$\leq 12.5 \text{ kW/m}^2$	Ember attack	3 and 5
BAL-19	$>12.5 \text{ kW/m}^2 \leq 19 \text{ kW/m}^2$	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing radiant heat flux.	3 and 6
BAL-29	$>19 \text{ kW/m}^2 \leq 29 \text{ kW/m}^2$	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing radiant heat flux	3 and 7
BAL-40	$>29 \text{ kW/m}^2 \leq 40 \text{ kW/m}^2$	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing radiant heat flux with the increased likelihood of exposure to flames.	3 and 8
BAL-FZ	$>40 \text{ kW/m}^2$	Direct exposure to flames from fire front in addition to radiant heat flux and ember attack	3 and 9

Source: "AS 3959: 2018 Construction of buildings in bushfire-prone areas" published by Standards Australia, Sydney.

