

## Bushfire Attack Level (BAL) Assessment Report

Site details

Address: Lot 9000 (142) Taylor Road


Suburb: Mundijong

State: Western Australia

Local Government Area: Shire of Serpentine-Jarrahdale

Description of Building Works: Construction of Class 1a dwellings - Stage 2 Mundi Estate

Report details

Project number	24.076	Report version	0
Assessment date	10/07/2025	Report date	15/09/2025
Author	Beau Eaton Senior Bushfire and Environmental Consultant	Review	Dylan Wray Associate Bushfire Consultant (BPAD L2-44656) <div><div></div></div>

### Site Assessment and Site Plan

Assessment of 57 lots in Stage 2 Mundi Estate (the subject site), was undertaken on 10/07/2025 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 lots fall within a designated bushfire prone area as per the *Western Australia State Map of Bush Fire Prone Areas* (DFES, 2024) and are subject to this assessment. 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 vegetation class is identified in Table 1 and presented in Figure 2.










**Table 1: Vegetation Classification**

<p><b>Plot 1</b></p> <p><b>Photo 1</b></p> <p>Eucalyptus trees up to 20 m in height with a grassy understorey. The vegetation structure is considered open. The plot contains more than a single row of trees, however, due to frequent traffic along the site access road, a photo couldn't be captured of the denser portion.</p> <p>The slope under this vegetation was assessed to be upslope/flat land.</p>	<p><b>Class B Woodland</b></p> 
<p><b>Plot 1</b></p> <p><b>Photo 2</b></p> <p>Eucalyptus trees up to 20 m in height with a grassy understorey. The vegetation structure is considered open. The plot contains more than a single row of trees, however, due to frequent traffic along the site access road, a photo couldn't be captured of the denser portion.</p> <p>The slope under this vegetation was assessed to be upslope/flat land.</p> <p>The slope under this vegetation was assessed to be flat/upslope.</p>	<p><b>Class B Woodland</b></p> 
<p><b>Plot 2</b></p> <p><b>Photo 3</b></p> <p>Grass in roadside verge extending into adjacent property. The grass has an average height greater than 100 mm.</p> <p>The slope under this vegetation was assessed to be flat/upslope.</p>	<p><b>Class G Grassland</b></p> 



<b>Plot 2</b>	<b>Class G Grassland</b>
<p><b>Photo 4</b></p> <p>Grass in paddocks 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>	
<b>Plot 3</b>	<b>Excluded - clause 2.2.3.2 (e)</b>
<p><b>Photo 5</b></p> <p>Cleared land ahead of development in and surrounding the subject site.</p> <p>These non-vegetated areas have been excluded in accordance with Clause 2.2.3.2 (e) of AS 3959: 2018.</p>	
<b>Plot 3</b>	<b>Excluded - clause 2.2.3.2 (e)</b>
<p><b>Photo 6</b></p> <p>Graded road ahead of asphalt being laid connecting the subject site to other subsequent stages and adjoining Taylor Road.</p> <p>These non-vegetated areas have been excluded in accordance with Clause 2.2.3.2 (e) of AS 3959: 2018.</p>	



<b>Plot 4</b>	<b>Excluded - clause 2.2.3.2 (f)</b>
<p><b>Photo 7</b></p> <p>Grass in proposed Public Open Space (POS) cropped to less than 100 mm in height and maintained in a low-threat state. The area contains the occasional tree which comprise less than 10% of the overall canopy cover.</p> <p>This vegetation is regarded as low-threat and has been excluded in accordance with Clause 2.2.3.2 (f) of AS 3959: 2018.</p> <p>This photo was captured by the landowner due to slashing taking place after the site visit.</p>	
<p><b>Plot 4</b></p> <p><b>Photo 8</b></p> <p>Grass in proposed POS cropped to less than 100 mm in height and maintained in a low-threat state. The area contains the occasional tree which comprise less than 10% of the overall canopy cover.</p> <p>This vegetation is regarded as low-threat and has been excluded in accordance with Clause 2.2.3.2 (f) of AS 3959: 2018.</p> <p>This photo was captured by the landowner due to slashing taking place after the site visit.</p>	
<p><b>Plot 4</b></p> <p><b>Photo 9 (Background)</b></p> <p>Eucalyptus trees with an understorey of bare sand and slashed grass maintained in a low-threat state. Vegetation structure is considered open.</p> <p>This vegetation is regarded as low-threat and has been excluded in accordance with Clause 2.2.3.2 (f) of AS 3959: 2018.</p>	

## Plot 4

### Photo 10

Eucalyptus trees with an understorey of bare sand. Vegetation structure is considered open.

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

## Excluded - clause 2.2.3.2 (f)









## 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"/> <i>Table 2.4.5</i>	FDI 50 <input type="checkbox"/> <i>Table 2.4.4</i>	FDI 80 <input checked="" type="checkbox"/> <i>Table 2.4.3</i>	FDI 100 <input type="checkbox"/> <i>Table 2.4.2</i>

## Potential Bushfire Impacts

The potential bushfire impact (presented as BAL contours) to the proposed lots 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 (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 subject site and associated lots has been determined in accordance with Clause 2.2.6 of AS 3959: 2018. Relevant data from the 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
11	BAL-12.5	3 and 5
12	BAL-12.5	3 and 5
13	BAL-12.5	3 and 5
14	BAL-12.5	3 and 5
15	BAL-12.5	3 and 5
16	BAL-12.5	3 and 5
17	BAL-12.5	3 and 5
18	BAL-12.5	3 and 5
19	BAL-12.5	3 and 5
20	BAL-12.5	3 and 5
21	BAL-12.5	3 and 5
22	BAL-12.5	3 and 5
23	BAL-LOW	4
24	BAL-LOW	4
25	BAL-LOW	4
26	BAL-LOW	4
27	BAL-LOW	4
28	BAL-LOW	4
29	BAL-LOW	4
30	BAL-LOW	4
31	BAL-LOW	4
32	BAL-LOW	4
33	BAL-LOW	4
34	BAL-LOW	4
35	BAL-LOW	4
36	BAL-LOW	4
37	BAL-LOW	4
38	BAL-LOW	4
39	BAL-LOW	4
40	BAL-LOW	4
41	BAL-LOW	4





Affected Lot	BAL Rating	Construction sections to be consulted in AS 3959: 2018
42	BAL-12.5	3 and 5
43	BAL-12.5	3 and 5
44	BAL-12.5	3 and 5
45	BAL-12.5	3 and 5
46	BAL-12.5	3 and 5
47	BAL-LOW	4
48	BAL-LOW	4
49	BAL-LOW	4
50	BAL-LOW	4
51	BAL-LOW	4
52	BAL-LOW	4
53	BAL-LOW	4
54	BAL-LOW	4
55	BAL-LOW	4
56	BAL-LOW	4
57	BAL-LOW	4
58	BAL-LOW	4
59	BAL-LOW	4
60	BAL-LOW	4
61	BAL-LOW	4
62	BAL-LOW	4
63	BAL-LOW	4
64	BAL-LOW	4
65	BAL-LOW	4
66	BAL-12.5	3 and 5
67	BAL-12.5	3 and 5

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





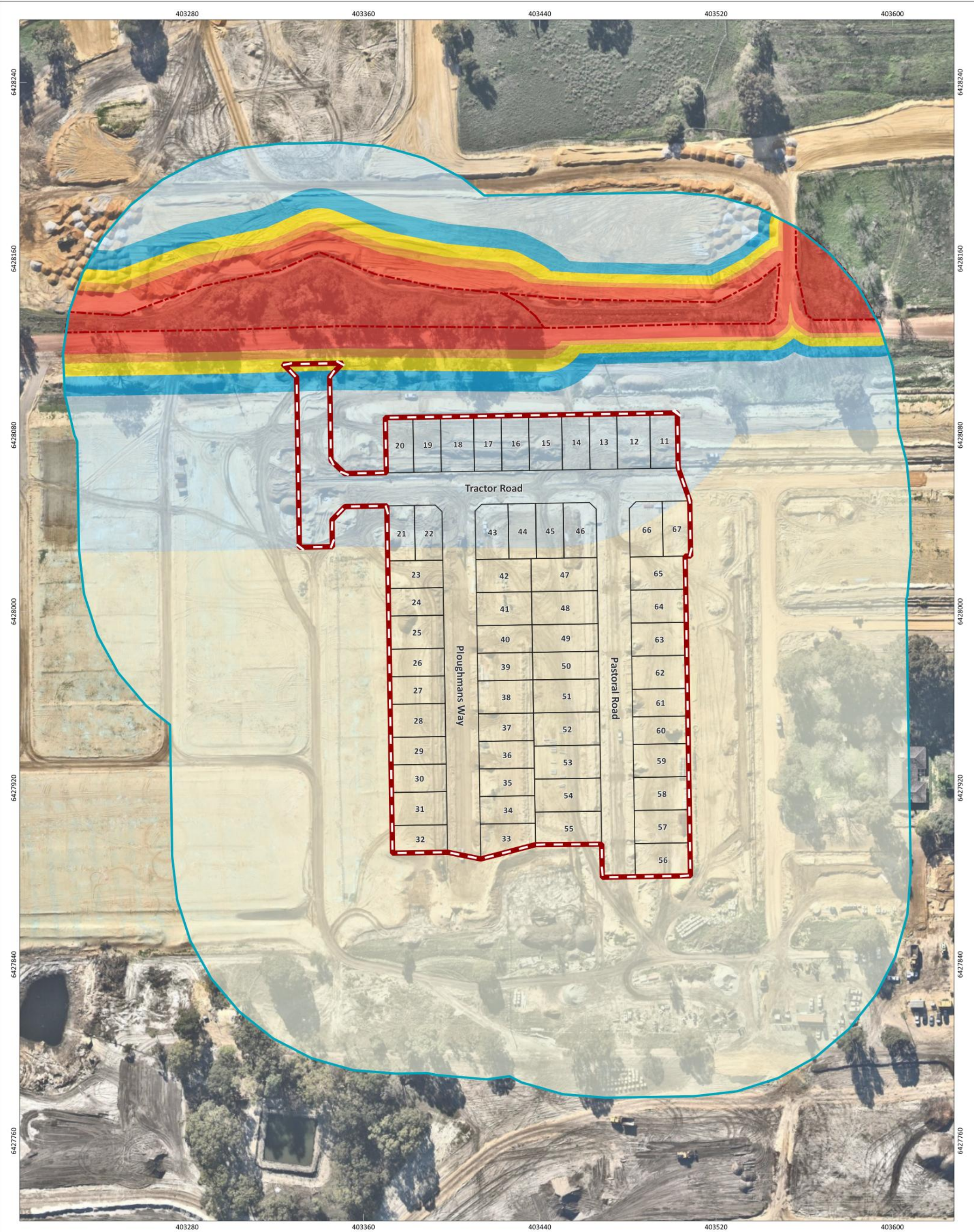


Figure 3: Bushfire Attack Level (BAL) Contours

0

15

30

45

60 m

N

SCALE

1:1,600

SHEET SIZE

A3 COLOUR

COORDINATE REFERENCE SYSTEM

GDA2020 / MGA zone 50

DATA SOURCE

Nearmap (25th June 2025)

PROJECT/REPORT NAME

Bushfire Attack Level Report: Stage 2, Mundi Estate  
Lot 9000 Mundi Estate

CIENT

Parcel Property

PROJECT NUMBER

A24.076

VERSION

0

DRAWN BY / REVIEWED BY

SM/BE

DATE

4/9/2025

Legend

Subject Site

Buffer 100m

Buffer 150m

Lots

Bushfire Hazard Interface

Bushfire Attack Level (BAL)

BAL-FZ

BAL-40

BAL-29

BAL-19

BAL-12.5

BAL-LOW

No	Description	Drawn	Approved	Date
A	Original issue	SM	BE	4/9/2025

NOTES:  
Cadastral boundary (LGATE-002). Label corresponds to the vegetation association number.

WESTERN ENVIRONMENTAL

Western Environmental Pty Ltd  
08 6244 2310 | enquiries@westernv.com.au  
Level 3/25 Prowse St, West Perth WA 6005  
westernv.com.au

G:\GIS\Project Data\2024\A24.076\Stage2\2\_Stage2\_BALs\A24.076\_Stage2\_BALs.qgz

COPYRIGHT: This document is and shall remain the property of The Client. This document may only be used for the purpose for which it was commissioned and in accordance with the terms of engagement. The Client does not hold any responsibility for the misuse of this document. Designed and Automated by AC



# **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 site and radiant heat flux exposure thresholds	Description of predicted bush fire attack and levels of exposure	Construction Section as per AS 3959
<b>BAL-LOW</b>		There is insufficient risk to warrant specific construction requirements.	4
<b>BAL-12.5</b>	$\leq 12.5 \text{ kW/m}^2$	Ember attack	3 and 5
<b>BAL-19</b>	$> 12.5 \text{ kW/m}^2 \leq 19 \text{ kW/m}^2$	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing radiant heat flux.	3 and 6
<b>BAL-29</b>	$> 19 \text{ kW/m}^2 \leq 29 \text{ kW/m}^2$	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing radiant heat flux	3 and 7
<b>BAL-40</b>	$> 29 \text{ kW/m}^2 \leq 40 \text{ kW/m}^2$	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
<b>BAL-FZ</b>	$> 40 \text{ kW/m}^2$	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.

