



## Bushfire Attack Level (BAL) Assessment Report

Site details	
<b>Address:</b> Lot 9004 (152) Adams Street, Mundijong	
<b>Suburb:</b> Mundijong	<b>State:</b> Western Australia
<b>Local Government Area:</b> Shire of Serpentine-Jarrahdale	
<b>Description of Building Works:</b> Construction of Class 1a dwellings - Stage 5 Mundi Estate	

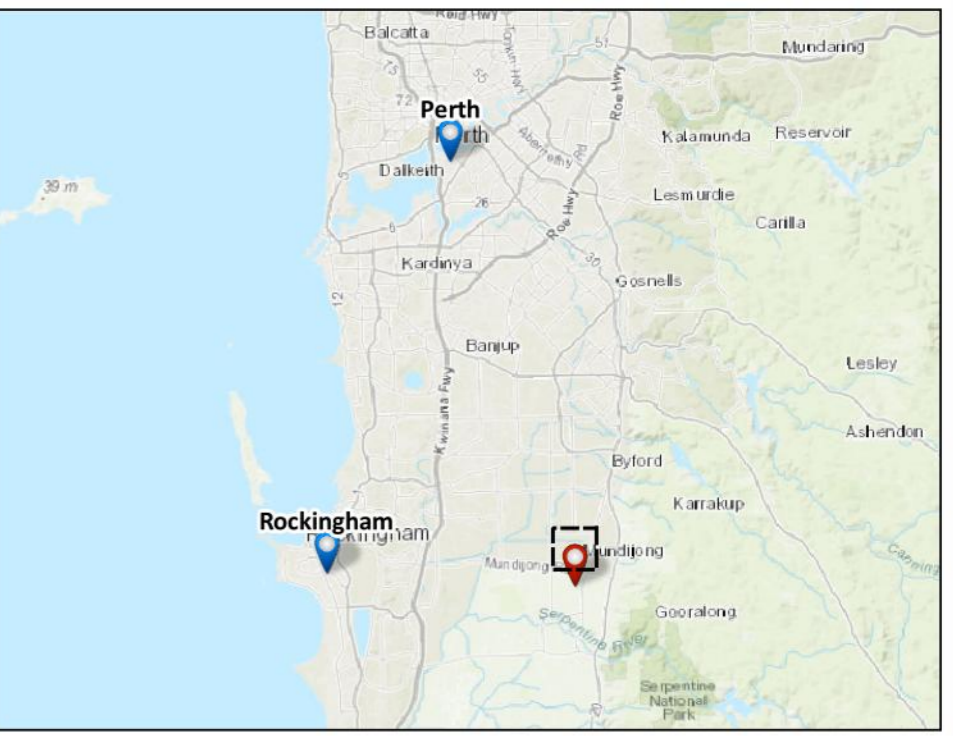
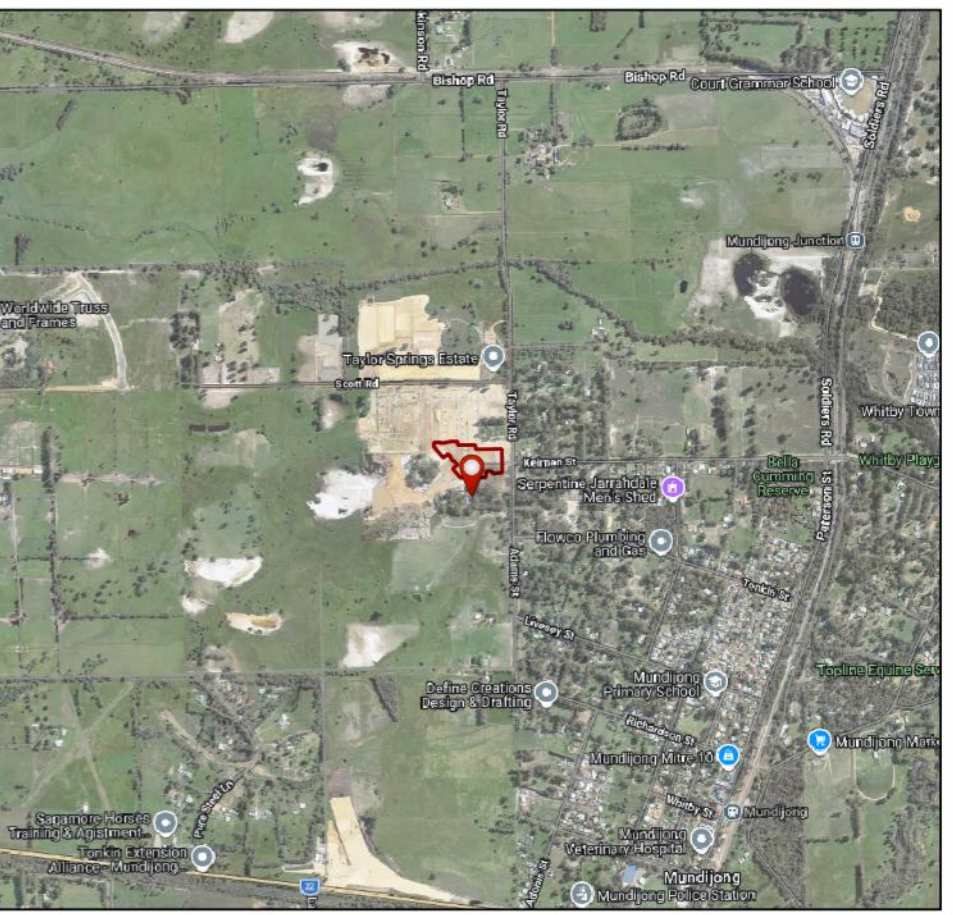
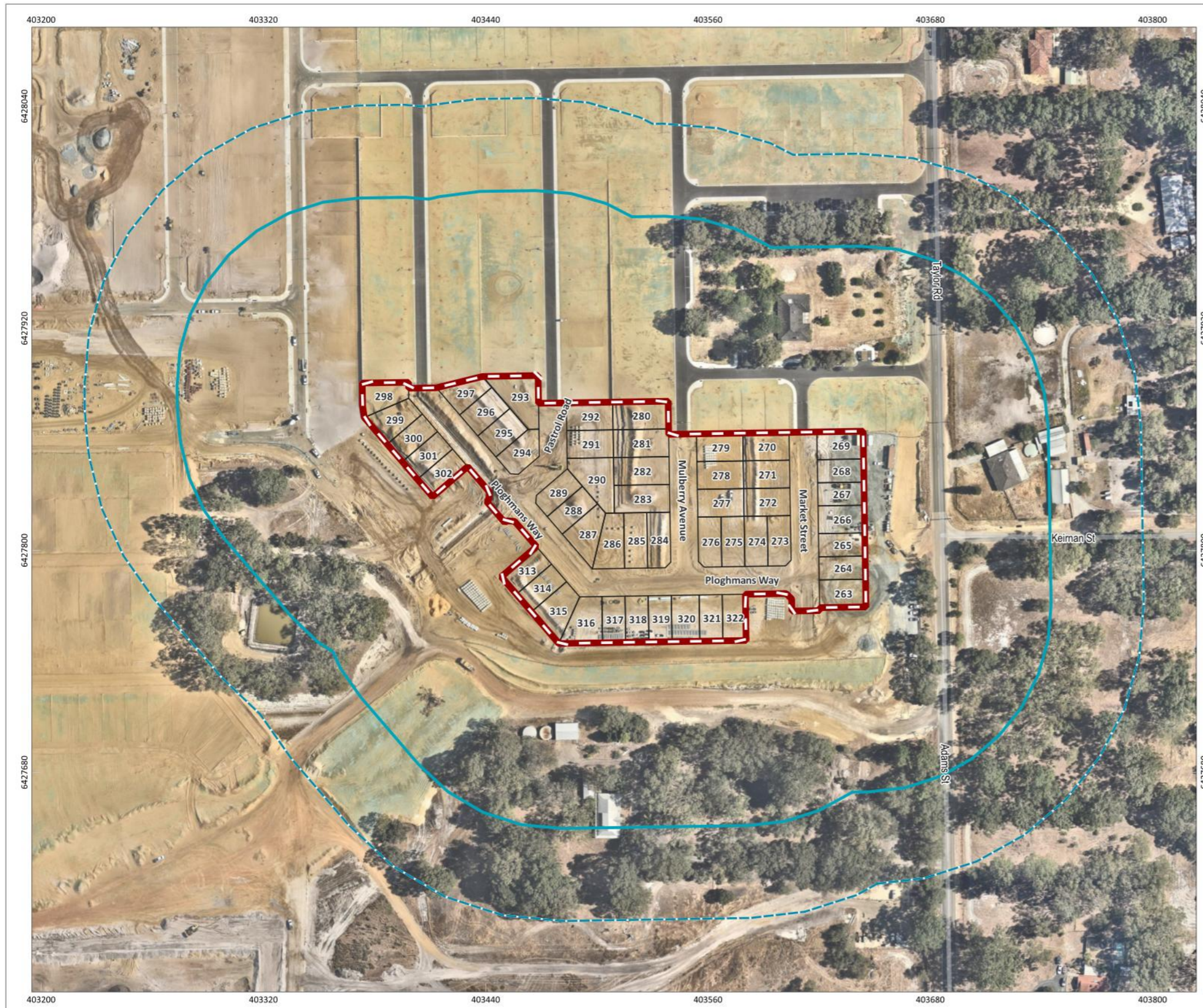
Report details			
<b>Project number</b>	A24.076	<b>Report version</b>	0
<b>Assessment date</b>	26/02/2026	<b>Report date</b>	10/04/2026
<b>Author</b>	Beau Eaton Senior Bushfire Consultant	<b>Review</b>	Dylan Wray Principal Bushfire Consultant (BPAD L3-44656) 

### Site Assessment and Site Plan

Assessment of 50 lots in Stage 5 Mundi 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 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

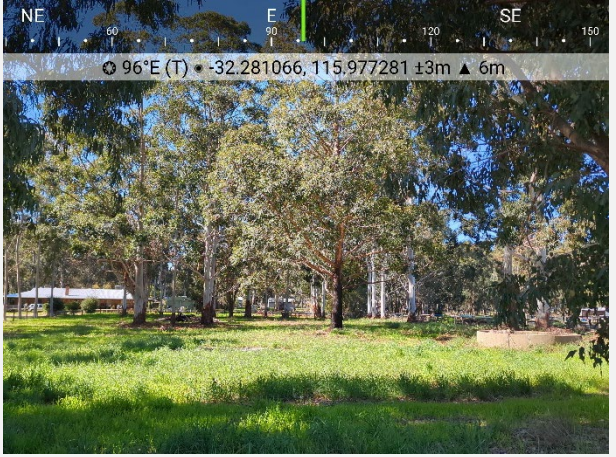
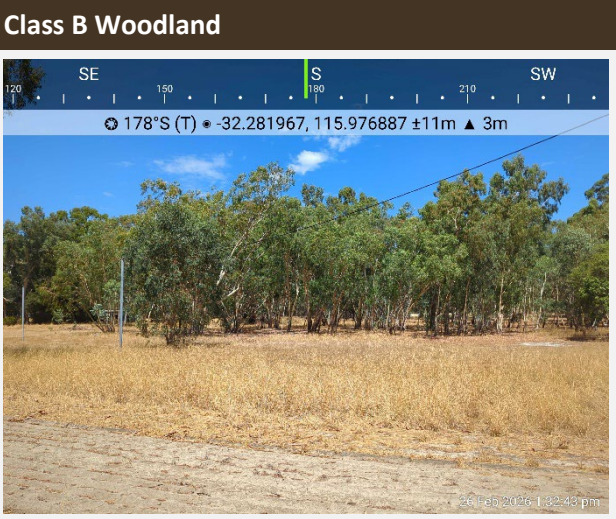
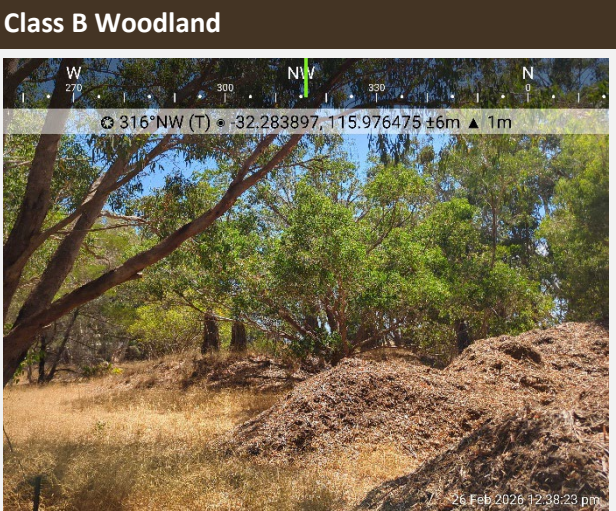
All vegetation within 100 m of the subject site was classified in accordance with Clause 2.2.3 of AS 3959: 2018. Each vegetation class is identified in Table 1 and presented in Figure 2.



**Figure 1: Site Overview**

		PROJECT/REPORT NAME Bushfire Attack Level Report Stage 5 Mundi Estate		<b>Legend</b> Subject Site Buffer 100m Buffer 150m Lot Boundary	 <b>WESTERN ENVIRONMENTAL</b> <small>Western Environmental Pty Ltd          08 6344 2310   enquiries@western.com.au          Level 3/25 Prowse St, West Perth WA 6005          western.com.au</small>
SCALE 1:2,400	SHEET SIZE A3 COLOUR	CLIENT Parcel Property	PROJECT NUMBER A24.076		
COORDINATE REFERENCE SYSTEM GDA2020 / MGA zone 50		DRAWN BY / REVIEWED BY SM/BE	DATE 24/3/2026		

**Table 1: Vegetation Classification**

Plot 1	Class B Woodland
<p><b>Photo 1</b></p> <p>Eucalyptus trees up to 20 m in height with a grassy understorey and a canopy cover ranging between 10-30 %. While occasional areas of denser tree canopy were observed, fire behaviour in this plot is considered most likely to represent Class B Woodland.</p> <p>The slope under this vegetation was assessed to be upslope/flat land.</p>	
<p><b>Photo 2 (background)</b></p> <p>Eucalyptus trees up to 20 m in height with a grassy understorey and a canopy cover ranging between 10-30 %. While occasional areas of denser tree canopy were observed, fire behaviour in this plot is considered most likely to represent Class B Woodland.</p> <p>The slope under this vegetation was assessed to be flat/upslope.</p>	
<p><b>Photo 3</b></p> <p>Eucalyptus trees up to 20 m in height with a grassy understorey and a canopy cover ranging between 10-30 %. While occasional areas of denser tree canopy were observed, fire behaviour in this plot is considered most likely to represent Class B Woodland.</p> <p>The slope under this vegetation was assessed to be flat/upslope.</p>	



<p><b>Plot 2</b></p>	<p><b>Class G Grassland</b></p>
<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 foliage cover.</p> <p>The slope under this vegetation was assessed to be flat/upslope.</p>	
<p><b>Plot 2</b></p>	<p><b>Class G Grassland</b></p>
<p><b>Photo 5</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 foliage cover.</p> <p>The slope under this vegetation was assessed to be flat/upslope.</p>	
<p><b>Plot 3</b></p>	<p><b>Excluded - clause 2.2.3.2 (e)</b></p>
<p><b>Photo 6</b></p> <p>Graded road ahead of asphalt being laid within 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>	



**Plot 3** Excluded - clause 2.2.3.2 (e)

**Photo 7**

Asphalt road located 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 8**

Grass in future proposed POS (POS 1) 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 foliage 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 (Background)**

Single row of trees with a bare understory consisting of blue metal and gravel. 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><b>Plot 4</b></p>	<p><b>Excluded - clause 2.2.3.2 (f)</b></p>
<p><b>Photo 10</b>  Eucalyptus trees up to 20 m in height to be retained within future landscaped POS. The developer has cleared the understory of vegetation and is managing the area to a low-threat state until the POS is developed. The ground contains course, woody mulch with insufficient surface fuel for the plot to warrant classification.  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><b>Plot 4</b></p>	<p><b>Excluded - clause 2.2.3.2 (f)</b></p>
<p><b>Photo 11</b>  Eucalyptus trees up to 20 m in height to be retained within future landscaped POS. The developer has cleared the understory of vegetation and is managing the area to a low-threat state until the POS is developed. The ground contains course, woody mulch with insufficient surface fuel for the plot to warrant classification.  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><b>Plot 4</b></p>	<p><b>Excluded - clause 2.2.3.2 (f)</b></p>
<p><b>Photo 12</b>  Eucalyptus trees up to 20 m in height to be retained within future landscaped POS. The developer has cleared the understory of vegetation and is managing the area to a low-threat state until the POS is developed. The ground contains course, woody mulch with insufficient surface fuel for the plot to warrant classification.  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><b>Plot 4</b></p>	<p><b>Excluded - clause 2.2.3.2 (f)</b></p>
<p><b>Photo 13</b>  Eucalyptus trees up to 20 m in height to be retained within future landscaped POS. The developer has cleared the understory of vegetation and is managing the area to a low-threat state until the POS is developed. The ground contains coarse, woody mulch with insufficient surface fuel for the plot to warrant classification.  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><b>Plot 4</b></p>	<p><b>Excluded - clause 2.2.3.2 (f)</b></p>
<p><b>Photo 14</b>  Eucalyptus trees up to 20 m in height to be retained within future landscaped POS. The developer has cleared the understory of vegetation and is managing the area to a low-threat state until the POS is developed. The ground contains coarse, woody mulch with insufficient surface fuel for the plot to warrant classification.  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>	





Figure 2: Vegetation Classification

		PROJECT/REPORT NAME Bushfire Attack Level Report Stage 5 Mundi Estate		<b>Legend</b> Subject Site Buffer 100m Buffer 150m Photos 2m 10m	<b>Vegetation Classification</b> Class B - Woodland Class G - Grassland Excluded AS 3959: 2018 2.2.3.2 (e) Excluded AS 3959: 2018 2.2.3.2 (f)	 <b>WESTERN ENVIRONMENTAL</b> <small>Western Environmental Pty Ltd          08 6244 2310   enquiries@western.com.au          Level 3/25 Prosser St, West Perth WA 6005          western.com.au</small>
	SCALE 1:2,300	SHEET SIZE A3 COLOUR	CLIENT Parcel Property			
COORDINATE REFERENCE SYSTEM GDA2020 / MGA zone 50		PROJECT NUMBER A24.076	VERSION 0	DRAWN BY / REVIEWED BY SM/BE	DATE 24/3/2026	
DATA SOURCE Nearmap (21st January 2026)						

## 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"/>
Table 2.4.5	Table 2.4.4	Table 2.4.3	Table 2.4.2

## 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. Figure 3 displays the Method 1 BAL assessment (in the form of BAL contours) that has been completed for the lots. The determine BAL for each lot is summarised in Table 4.



**Table 4: BAL Assessment Summary**

Affected Lot	BAL Rating	Construction sections to be consulted in AS 3959: 2018
263	BAL-12.5	3 and 5
264	BAL-12.5	3 and 5
265	BAL-12.5	3 and 5
266	BAL-12.5	3 and 5
267	BAL-12.5	3 and 5
268	BAL-12.5	3 and 5
269	BAL-12.5	3 and 5
270	BAL-LOW	4
271	BAL-LOW	4
272	BAL-LOW	4
273	BAL-LOW	4
274	BAL-LOW	4
275	BAL-LOW	4
276	BAL-LOW	4
277	BAL-LOW	4
278	BAL-LOW	4
279	BAL-LOW	4
280	BAL-LOW	4
281	BAL-LOW	4
282	BAL-LOW	4
283	BAL-LOW	4
284	BAL-LOW	4
285	BAL-LOW	4
286	BAL-LOW	4
287	BAL-LOW	4
28	BAL-LOW	4
289	BAL-LOW	4
290	BAL-LOW	4
291	BAL-LOW	4
292	BAL-LOW	4
293	BAL-LOW	4



Affected Lot	BAL Rating	Construction sections to be consulted in AS 3959: 2018
294	BAL-LOW	4
295	BAL-LOW	4
296	BAL-LOW	4
297	BAL-LOW	4
298	BAL-LOW	4
299	BAL-LOW	4
300	BAL-LOW	4
301	BAL-LOW	4
302	BAL-LOW	4
313	BAL-LOW	4
314	BAL-LOW	4
315	BAL-LOW	4
316	BAL-LOW	4
317	BAL-LOW	4
318	BAL-LOW	4
319	BAL-LOW	4
320	BAL-LOW	4
321	BAL-LOW	4
322	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 Report Stage 5 Mundi Estate		<b>Legend</b> Subject Site Buffer 100m Lot Boundary Bushfire Hazard Interface		<b>Bushfire Attack Level (BAL)</b> BAL-FZ BAL-40 BAL-29 BAL-19 BAL-12.5 BAL-LOW		<p><b>WESTERN ENVIRONMENTAL</b></p> <small>Western Environmental Pty Ltd          08 6244 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 A24.076	DATE 24/3/2026					
DATA SOURCE Nearmap (21st January 2026)		DRAWN BY / REVIEWED BY SM/BE						

# **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
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.

