

30 October 2026

Our Ref: A24.076-RPT-BAL-STG7_0_FINAL



Bushfire Attack Level (BAL) Assessment Report

Site details

Address: Stage 7, Mundi Estate

Suburb: Mundijong

State: Western Australia

Local Government Area: Shire of Serpentine-Jarrahdale

Description of Building Works: Construction of Class 1a dwellings – Stage 7 Mundi Estate

Report details

Project number A24.076 **Report version** Final

Assessment date 13/08/2026 **Report date** 30/09/2026

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Purpose of this BAL Assessment Report

This Bushfire Attack Level (BAL) Assessment Report has been prepared to accompany the BAL certificates for building licenses within Stage 7 of the Mundi Estate, given the lots are designated as bushfire prone (Figure 1). The BAL certificates provide the BAL rating and separation distance to the nearest bushfire hazard interface for each lot.

Site Assessment and Site Plan

The assessment of 50 lots (subject lots) within Stage 7 of Mundi Estate. (subject site) was undertaken on 13/08/2026 for the purpose of determining the 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). 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 classification affecting the BAL is identified in Table 1 and presented in Figure 2.

Note: Vegetation was classified based on its condition and form at the time of assessment. While POS 5 and 6 to the south of Stage 7 will include classified vegetation, the landscaping has been strategically designed to avoid BAL ratings on the subject lots. A copy of the vegetation typologies plan for POS 5 and POS 6 is provided in Appendix A.



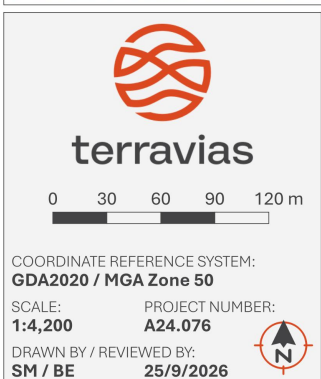
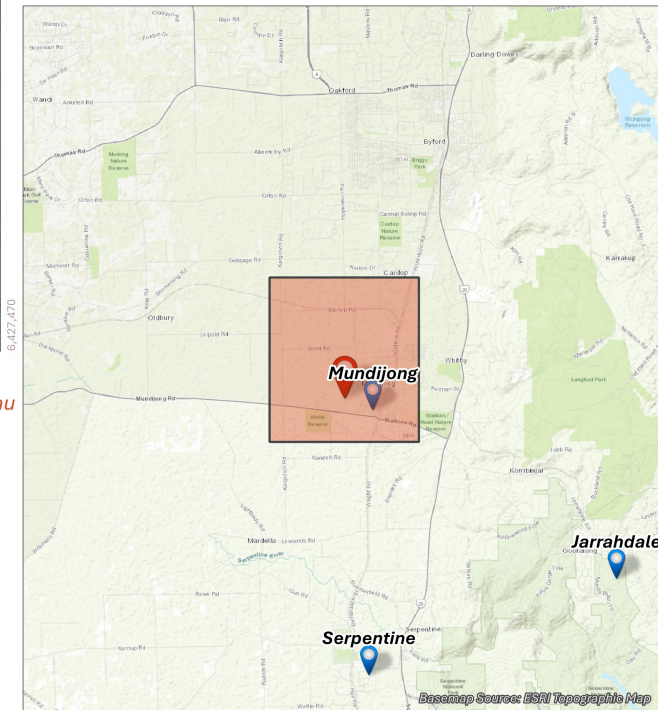
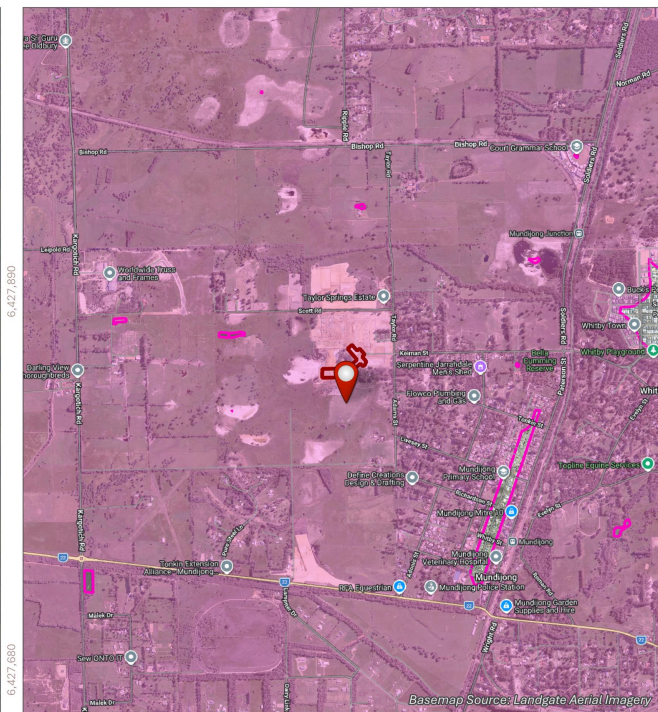
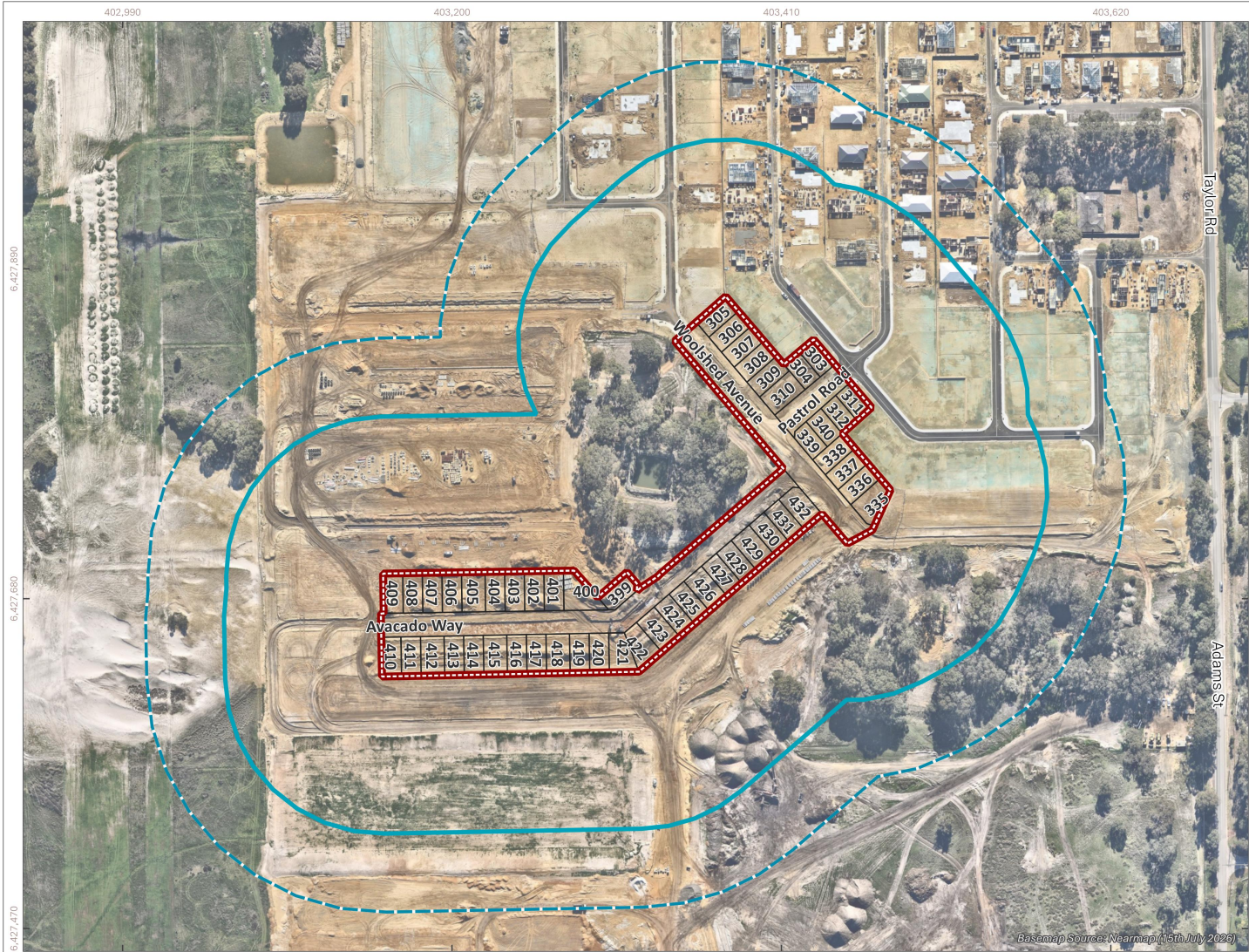


Figure 1: Site Overview

-  Subject Site
-  Buffer 100m
-  Buffer 150m
-  Lot boundary

Bush Fire Prone Area Planning (OBRM-023)

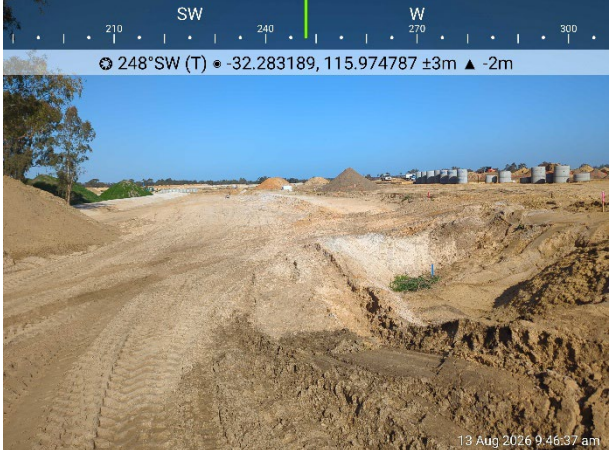
-  Bushfire Prone Area 2

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Table 1: Vegetation Classification

Plot 1 Photo 1 Grass with an average height greater than 100 mm. The slope under this vegetation was assessed to be flat/upslope.	Class G Grassland SW210240270300 252°SW (T) • -32.281307, 115.970705 ±3m ▲ 3m  10 July 2025, 1:33:42 pm
Plot 2 Photo 2 Cleared land ahead of future development, north of the subject site. Non-vegetated areas have been excluded in accordance with Clause 2.2.3.2 (e) of AS 3959: 2018.	Excluded - clause 2.2.3.2 (e) N0306090 55°NE (T) • -32.282127, 115.971493 ±10m ▲ -2m  13 Aug 2026 9:31:47 am
Plot 2 Photo 3 Ploughmans way, north-east of the subject site. Non-vegetated areas have been excluded in accordance with Clause 2.2.3.2 (e) of AS 3959: 2018.	Excluded - clause 2.2.3.2 (e) W270300330N0 313°NW (T) • -32.282172, 115.974818 ±3m ▲ 0m  13 Aug 2026 9:51:15 am



Plot 2 Photo 4 Cleared land ahead of development in future stages of Mundi Estate. Photograph was captured south-east of the subject site. Non-vegetated areas have been excluded in accordance with Clause 2.2.3.2 (e) of AS 3959: 2018.	Excluded - clause 2.2.3.2 (e)  SW W 210 240 270 300 248°SW (T) • -32.283189, 115.974787 ±3m ▲ -2m 13 Aug 2026 9:46:37 am
Plot 3 Photo 5 Eucalyptus trees in future Public Open Space (POS) 4 with an understorey of bare sand and slashed grass maintained in a low-threat state. 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. Note, once the POS is developed, it will still be excluded in accordance with Clause 2.2.3.2 (b) of AS 3959: 2018, given it will be less than 1ha in area and more than 100m from other areas of classified vegetation.	Excluded - clause 2.2.3.2 (f)  E SE 60 90 120 150 116°E (T) • -32.282312, 115.973084 ±3m ▲ -1m 13 Aug 2026 9:26:01 am
Plot 3 Photo 6 Eucalyptus trees in future POS 4 with an understorey of bare sand and slashed grass maintained in a low-threat state. 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. Note, once the POS is developed, it will still be excluded in accordance with Clause 2.2.3.2 (b) of AS 3959: 2018, given it will be less than 1ha in area and more than 100m from other areas of classified vegetation.	Excluded - clause 2.2.3.2 (f)  N NE E 0 30 60 90 38°NE (T) • -32.282283, 115.972988 ±3m ▲ -2m 13 Aug 2026 9:26:11 am

Plot 3**Excluded - clause 2.2.3.2 (f)****Photo 7**

Future POS 6 located south-east of the subject site, containing eucalyptus trees and a woody mulch base as an understory growth suppressant. 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.

Note, once the POS is developed, the portions of the POS that occur within 100 m of the subject site will remain excluded in accordance with Clause 2.2.3.2 (f) of AS 3959: 2018.

**Plot 3****Excluded - clause 2.2.3.2 (f)****Photo 8**

Future POS 6 located south-east of the subject site, containing grass cropped to a height less than 100 mm.

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

Note, once the POS is developed, the portions of the POS that occur within 100 m of the subject site will remain excluded in accordance with Clause 2.2.3.2 (f) of AS 3959: 2018.

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

Future POS 6 located south-east of the subject site, containing grass cropped to a height less than 100 mm.

The photo depicts glyphosate being sprayed in the understory to suppress vegetation regrowth.

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

Note, once the POS is developed, the portions of the POS that occur within 100 m of the subject site will remain excluded in accordance with Clause 2.2.3.2 (f) of AS 3959: 2018.



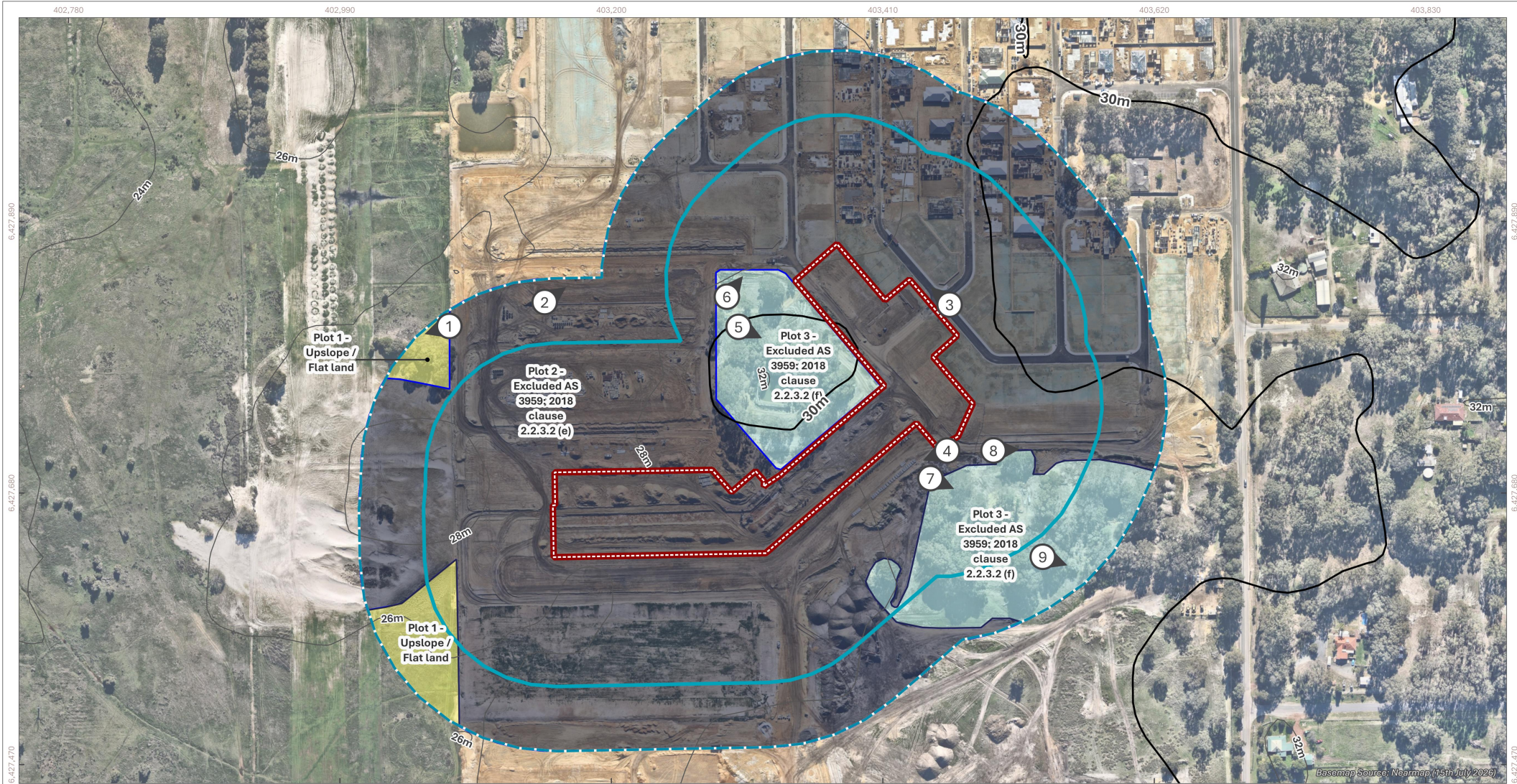


Figure 2: Vegetation Classification


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0 30 60 90 120 m

COORDINATE REFERENCE SYSTEM:
GDA2020 / MGA Zone 50

SCALE: **1:4,200** PROJECT NUMBER: **A24.076**

DRAWN BY / REVIEWED BY:
SM / BE 25/9/2026



-  Subject Site
-  Buffer 100m
-  Buffer 150m

-  Photo location
- Contours (DPIRD-072)**
-  2m
-  10m

Vegetation Classification

-  Class G - Grassland
-  Excluded AS 3959: 2018 2.2.3.2 (e)
-  Excluded AS 3959: 2018 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 ☐	FDI 50 ☐	FDI 80 ☒	FDI 100 ☐
Table 2.4.5	Table 2.4.4	Table 2.4.3	Table 2.4.2

Potential Bushfire Impacts

The potential bushfire impact to the subject lots from each of the identified vegetation plots are identified 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 G Grassland	All upslopes and flat land (0 degrees)	<6	6 <8	8 - <12	12 - <17	17 - <50
2	Excluded - clause 2.2.3.2 (e)	-	No separation distances required - BAL-LOW				
3	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 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 (Appendix B)
303	BAL-LOW	4
304	BAL-LOW	4
305	BAL-LOW	4
306	BAL-LOW	4
307	BAL-LOW	4
308	BAL-LOW	4
309	BAL-LOW	4
310	BAL-LOW	4
311	BAL-LOW	4
312	BAL-LOW	4
335	BAL-LOW	4
336	BAL-LOW	4
337	BAL-LOW	4
338	BAL-LOW	4
339	BAL-LOW	4
340	BAL-LOW	4
399	BAL-LOW	4
400	BAL-LOW	4
401	BAL-LOW	4
402	BAL-LOW	4
403	BAL-LOW	4
404	BAL-LOW	4
405	BAL-LOW	4
406	BAL-LOW	4
407	BAL-LOW	4
408	BAL-LOW	4
409	BAL-LOW	4
410	BAL-LOW	4
411	BAL-LOW	4
412	BAL-LOW	4
413	BAL-LOW	4
414	BAL-LOW	4
415	BAL-LOW	4
416	BAL-LOW	4
417	BAL-LOW	4
418	BAL-LOW	4



Affected Lot	BAL Rating	Construction sections to be consulted in AS 3959: 2018 (Appendix B)
419	BAL-LOW	4
420	BAL-LOW	4
421	BAL-LOW	4
422	BAL-LOW	4
423	BAL-LOW	4
424	BAL-LOW	4
425	BAL-LOW	4
426	BAL-LOW	4
427	BAL-LOW	4
428	BAL-LOW	4
429	BAL-LOW	4
430	BAL-LOW	4
431	BAL-LOW	4
432	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.



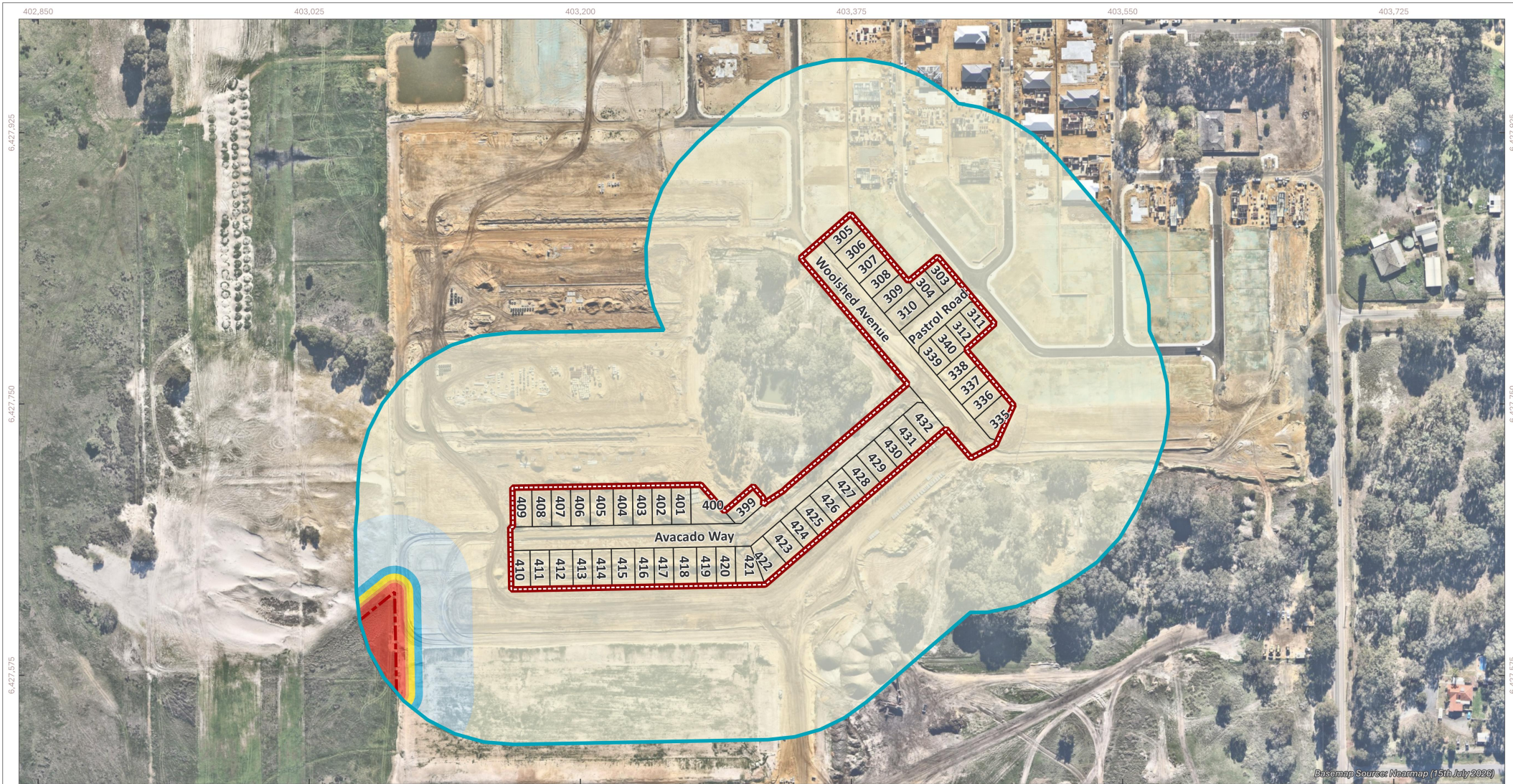


Figure 3: Bushfire Attack Level (BAL) Contours

- Subject Site
- Buffer 100m
- Lot boundary
- Bushfire Hazard Interface

Bushfire Attack Level (BAL)

- BAL-FZ
- BAL-40
- BAL-29
- BAL-19
- BAL-12.5
- BAL-LOW



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0 25 50 75 100 m

COORDINATE REFERENCE SYSTEM:
GDA2020 / MGA Zone 50

SCALE: PROJECT NUMBER:
1:3,500 A24.076

DRAWN BY / REVIEWED BY:
SM / BE 25/9/2026



References

Standards Australia (SA). (2018). *Construction of buildings in bushfire-prone areas (AS 3959: 2018)*.

Datasets Used

Department of Fire and Emergency Services (DFES). (2025). *Bush Fire Prone Area Planning (OBRM-023)*. Retrieved on 17/6/26 from: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/Pages/default.aspx>.

Department of Primary Industries and Regional Development (DPIRD). (2019). *2 metre contours (DPIRD-072)*. Retrieved on 17/6/26 from <https://catalogue.data.wa.gov.au/dataset/dpird-2-metre-contours>.

Western Environmental Approvals Pty Ltd (WEPL). (2026). *Bushfire Management Plan: Subdivision Application – Stages 9-13, Mundi Estate*. Prepared for Parcel Property.



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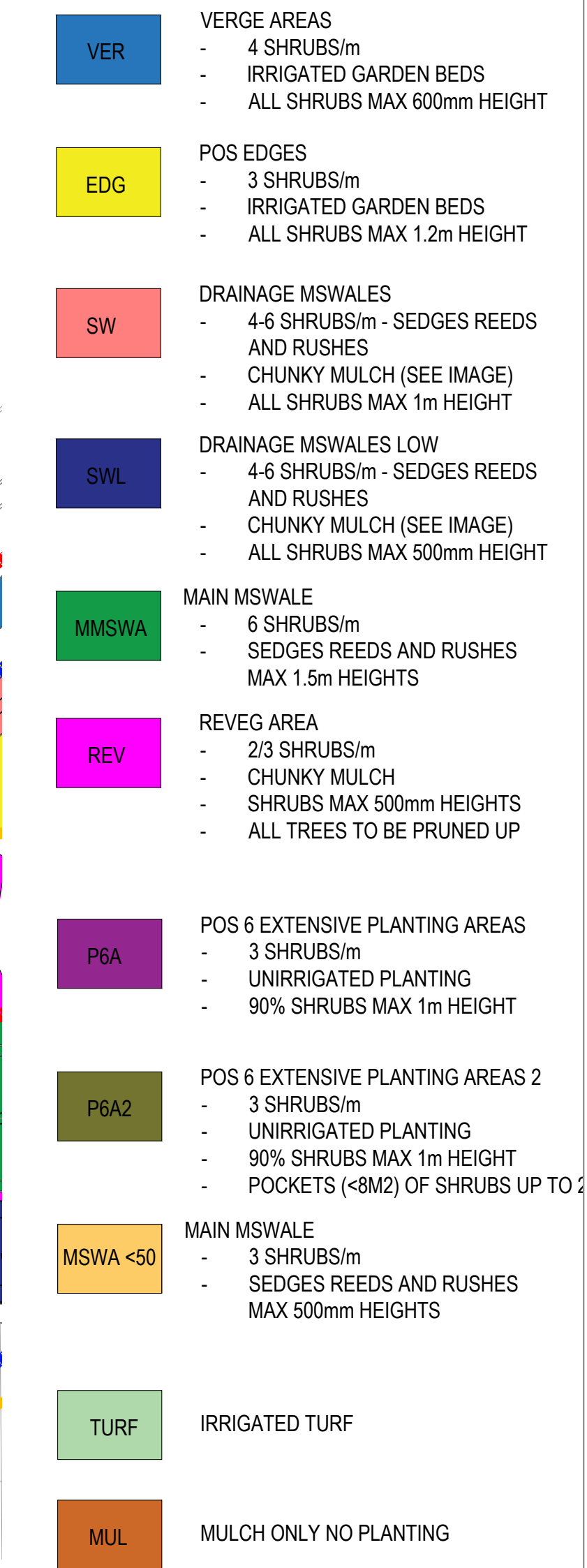
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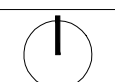


Appendix A: POS 5 and POS 6 Vegetation Typologies



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PROJECT NO Project No	DRAWN BY MD	APPROVED BY DP	REV E
SCALE 1:500	SHEET NO POS 6	SHEET SIZE A1	
			



Appendix B:

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.