

## Bushfire Attack Level (BAL) Assessment Report for Lot 313 Beenyup Grove Stage 9, Byford

### Site Details

**Address:** Lots 301-316 and 381-485 Beenyup Grove Estate

**Suburb:** Byford, 6122 **State:** Western Australia

**Local Government Area:** Shire of Serpentine Jarrahdale

**Description of building works:** Residential Dwellings

### Report details

<b>Report/Job number:</b>	21PER-19133	<b>Report version:</b>	v1
<b>Assessment date:</b>	3/09/2021	<b>Report date:</b>	15/09/2021
<b>Author:</b>	Maitland Ely	<b>Review:</b>	Daniel Panickar (BPAD Level 3-37802)



### SITE ASSESSMENT AND SITE PLAN

The assessment of the subject lots was undertaken on 3 September 2021 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 (SA 2018) Simplified Procedure (Method 1)*. An overview of the site is presented in Figure 1.

### VEGETATION CLASSIFICATION

All vegetation within 100 m of the subject lots 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 below and presented in Figure 1.

**Plot 1**      **Classification or Exclusion Clause**      **Class D Scrub**

**Photo Point 1**

Classified vegetation within this plot is comprised of shrubs greater than 2m high with foliage cover greater than 30%.

Slope under this vegetation was recorded as upslope/flat land.

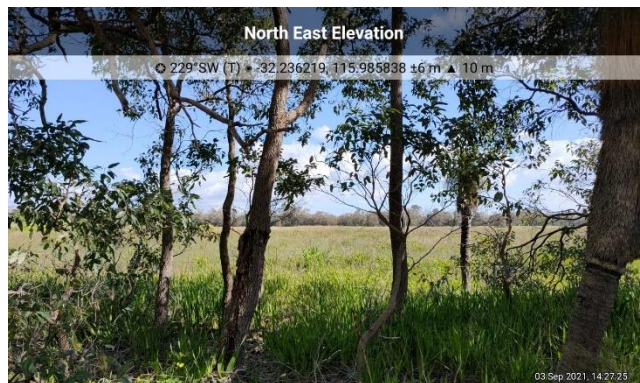


**Plot 2**      **Classification or Exclusion Clause**      **Class G Grassland**

**Photo Point 2**

Classified vegetation within this plot is comprised of grasses.

Slope under this vegetation was recorded as upslope/flat land.



**Plot 2**      **Classification or Exclusion Clause**      **Class G Grassland**

**Photo Point 3**

Classified vegetation within this plot is comprised of grasses.

Slope under this vegetation was recorded as upslope/flat land.



**Plot 2 Classification or Exclusion Clause Class G Grassland**

**Photo Point 4**

Classified vegetation within this plot is comprised of grasses.

Slope under this vegetation was recorded as upslope/flat land.

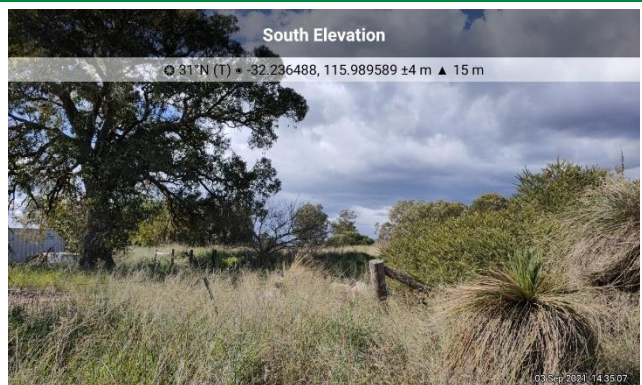


**Plot 2 Classification or Exclusion Clause Class G Grassland**

**Photo Point 5**

Classified vegetation within this plot is comprised of grasses and isolated shrubs.

Slope under this vegetation was recorded as upslope/flat land.



**Plot 2 Classification or Exclusion Clause Class G Grassland**

**Photo Point 6**

Non-vegetated area that is permanently cleared of vegetation for future development.





**Plot 3 Classification or Exclusion Clause Excluded AS 3959-2018 2.2.3.2 (e) & (f)**

**Photo Point 7**

Non-vegetated area that is permanently cleared of vegetation for future development.



**Plot 3 Classification or Exclusion Clause Excluded AS 3959-2018 2.2.3.2 (e) & (f)**

**Photo Point 8**

Non-vegetated area that is permanently cleared of vegetation, currently containing roads.



**Plot 3 Classification or Exclusion Clause Excluded AS 3959-2018 2.2.3.2 (e) & (f)**

**Photo Point 9**

Vegetation present has been excluded as it is regarded as low threat due to it being managed, grazed grass.

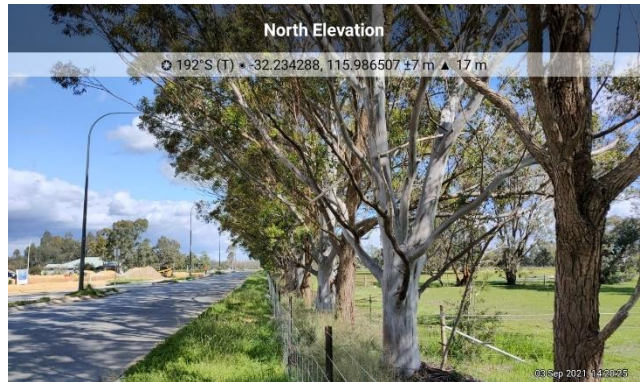




**Plot 3 Classification or Exclusion Clause Excluded AS 3959-2018 2.2.3.2 (e) & (f)**

**Photo Point 10**

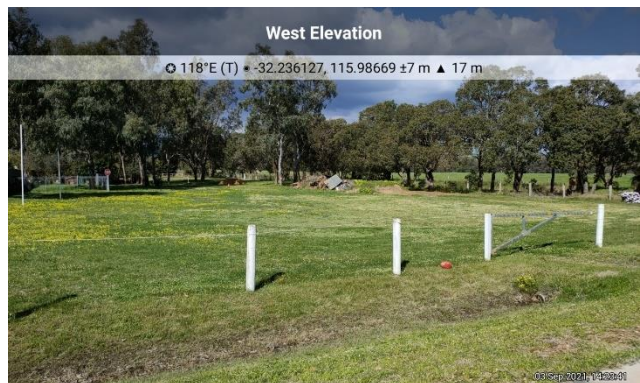
Vegetation present has been excluded as it is regarded as low threat due to it being managed, grazed grass with a windbreak.



**Plot 3 Classification or Exclusion Clause Excluded AS 3959-2018 2.2.3.2 (e) & (f)**

**Photo Point 11**

Vegetation present has been excluded as it is regarded as low threat due to it being managed, grazed grass.



**Plot 3 Classification or Exclusion Clause Excluded AS 3959-2018 2.2.3.2 (e) & (f)**

**Photo Point 12**

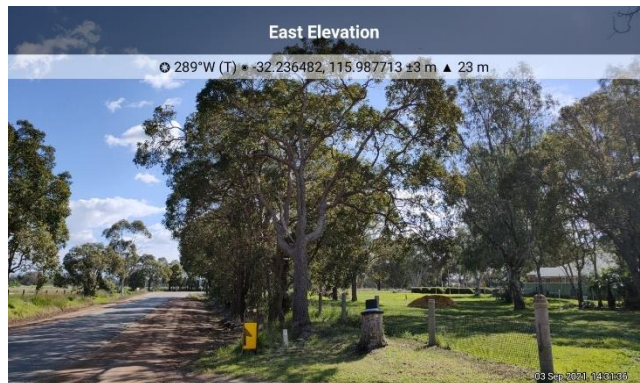
Vegetation present has been excluded as it is regarded as low threat due to it being managed, grazed grass with a windbreak.



**Plot 3 Classification or Exclusion Clause Excluded AS 3959-2018 2.2.3.2 (e) & (f)**

**Photo Point 13**

Vegetation present has been excluded as it is regarded as low threat due to it being managed, grazed grass with a windbreak.



## RELEVANT FIRE DANGER INDEX

The fire danger index for this site has been determined in accordance with Table 2.1 of AS 3959: 2018.

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 to the site / proposed development from each of the identified vegetation plots are identified below, Table 1 and Figure 1.

**Table 1: BAL Analysis AS 3959: 2018**

Plot	Vegetation Classification	Effective Slope	Separation distances required				
			BAL-FZ	BAL-40	BAL-29	BAL-19	BAL-12.5
1	Class D Scrub	All upslopes and flat land (0 degrees)	<10	10-<13	13-<19	19-<27	27-<100
2	Class G Grassland	All upslopes and flat land (0 degrees)	<6	6-<8	8-<12	12-<17	17-<50
3	Excluded AS 3959: 2018 2.2.3.2 (e) & (f)	-	No separation distances required – BAL-LOW				

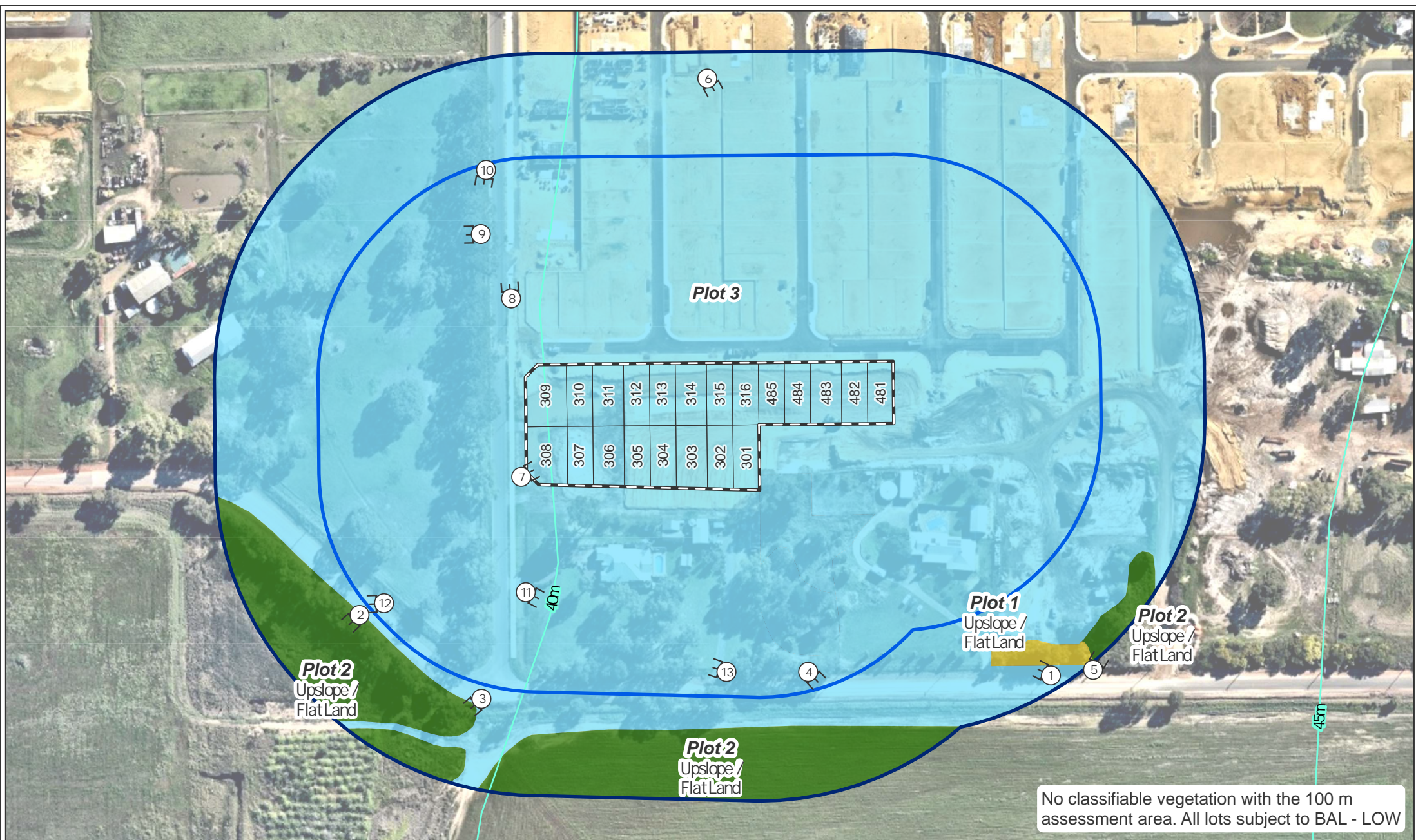
**DETERMINED BUSHFIRE ATTACK LEVEL (BAL)**

The determined Bushfire Attack Level (highest BAL) for the proposed works has been determined in accordance with Clause 2.2.6 of AS 3959: 2018 relevant data from the site assessment shown in Figure 1 and Table 1.

**Table 2: BAL Assessment summary**

BAL	Affected lots	Construction sections to be consulted in AS 3959-2018
BAL-LOW	Lots (301-316) & (481-485)	4

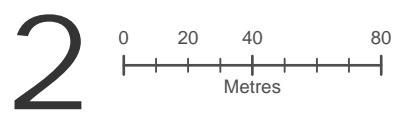




**Figure 1: Vegetation Classification**

- Subject site
- Lot boundary
- 100m site assessment
- 150m site assessment
- Contour (5m)
- Photo location

- Vegetation classification**
- Class D scrub
  - Class G grassland
  - Excluded as per clause 2.2.3.2 (e) and (f)



No classifiable vegetation with the 100 m assessment area. All lots subject to BAL - LOW

Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021



## 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



# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 301, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959: 2018.

**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 

**Certificate Date:** 14/09/2021













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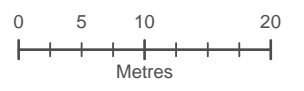
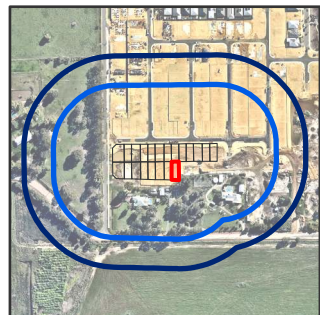




**Bushfire Attack Level (BAL) Certificate - Lot 301 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021



# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 302, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959: 2018.

**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 





**Certificate Date:** 14/09/2021









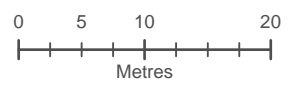
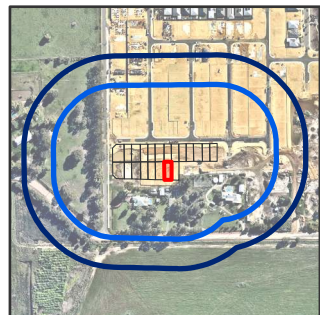
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**Bushfire Attack Level (BAL) Certificate - Lot 302 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021





# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 303, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

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*Eco Logical Australia*

**Signature:** 





**Certificate Date:** 14/09/2021









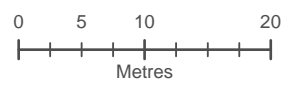
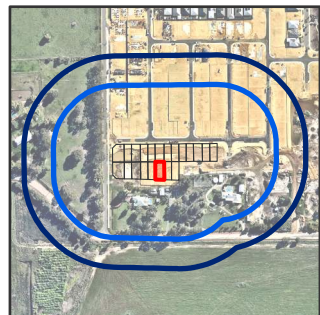
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Accreditation Expiry: December 2021



**Bushfire Attack Level (BAL) Certificate - Lot 303 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021



# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 304, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959: 2018.

**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 

**Certificate Date:** 14/09/2021













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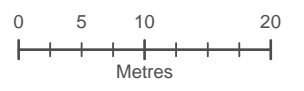
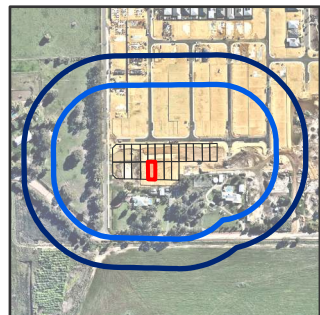




**Bushfire Attack Level (BAL) Certificate - Lot 304 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021



# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 305, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959: 2018.

**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 





**Certificate Date:** 14/09/2021









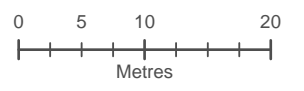
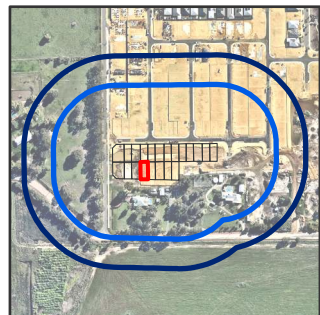
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Accreditation Expiry: December 2021



**Bushfire Attack Level (BAL) Certificate - Lot 305 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021





# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

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<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

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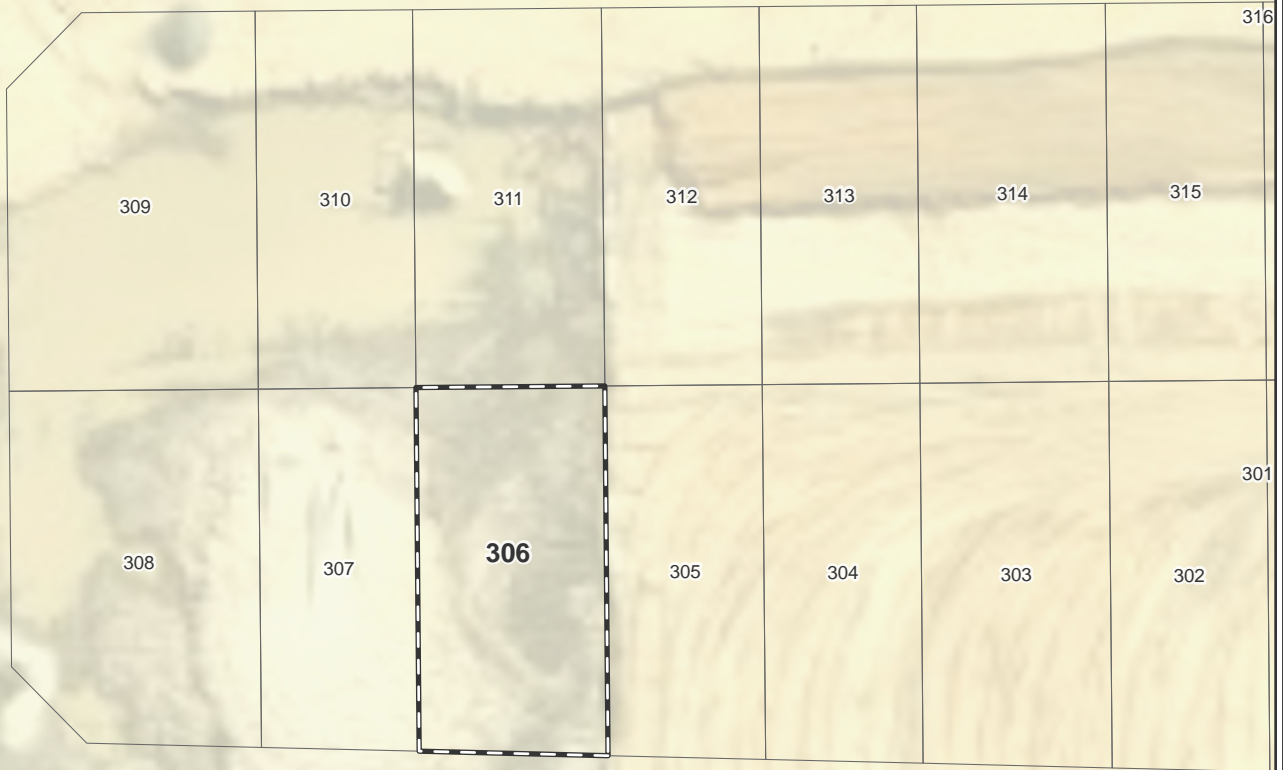
**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 





**Certificate Date:** 14/09/2021









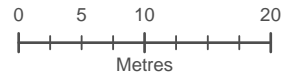
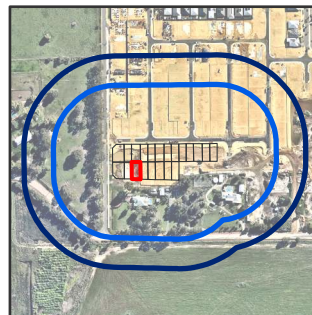
Accreditation No: BPAD 37802  
Accreditation Expiry: December 2021



**Bushfire Attack Level (BAL) Certificate - Lot 306 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021



# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 307, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959: 2018.

**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 





**Certificate Date:** 14/09/2021









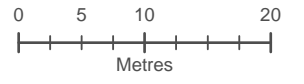
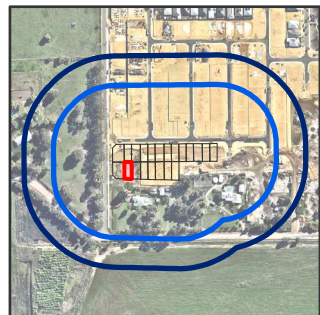
Accreditation No: BPAD 37802  
Accreditation Expiry: December 2021



**Bushfire Attack Level (BAL) Certificate - Lot 307 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021





# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 308, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959: 2018.

**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 





**Certificate Date:** 14/09/2021









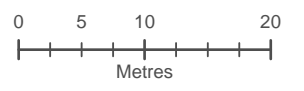
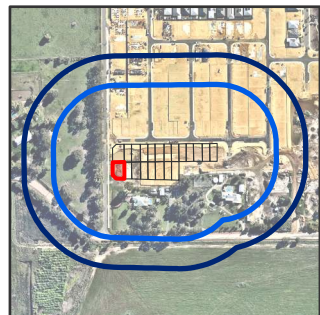
Accreditation No: BPAD 37802  
Accreditation Expiry: December 2021



**Bushfire Attack Level (BAL) Certificate - Lot 308 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021



# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 309, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959: 2018.

**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 

**Certificate Date:** 14/09/2021













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Accreditation Expiry: December 2021

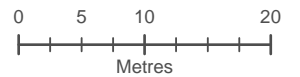
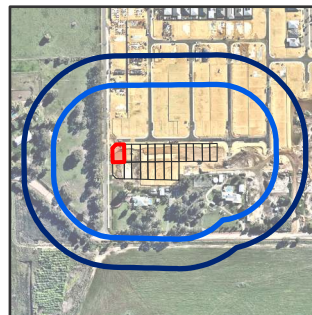




**Bushfire Attack Level (BAL) Certificate - Lot 309 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021



# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 310, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959: 2018.

**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 





**Certificate Date:** 14/09/2021









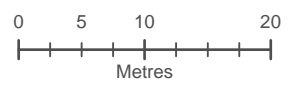
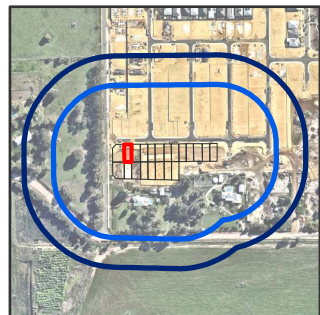
Accreditation No: BPAD 37802  
Accreditation Expiry: December 2021



**Bushfire Attack Level (BAL) Certificate - Lot 310 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021





# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 311, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959: 2018.

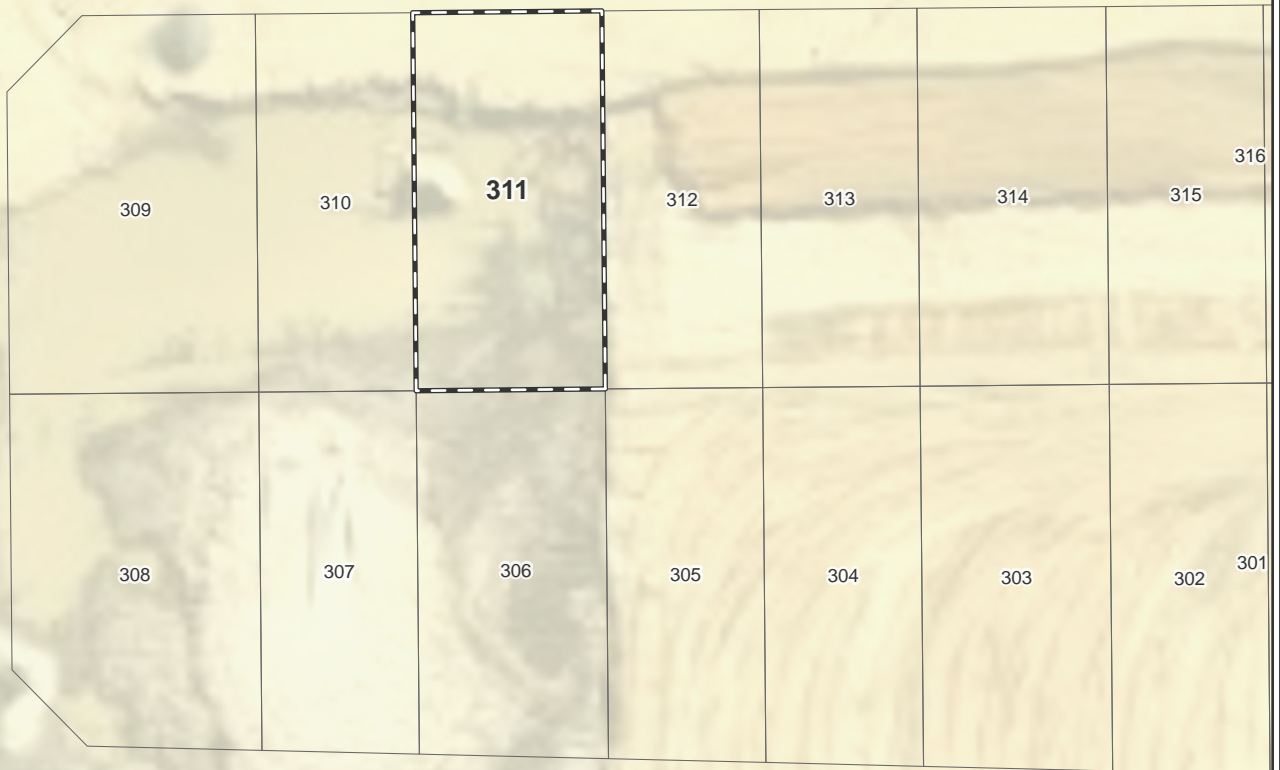
**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 





**Certificate Date:** 14/09/2021









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Accreditation Expiry: December 2021

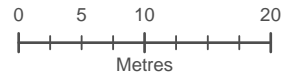
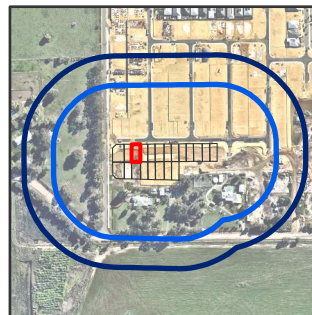


**Bushfire Attack Level (BAL) Certificate - Lot 311 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

**Bushfire Attack Level (BAL)**

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



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021



# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 312, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959: 2018.

**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 

**Certificate Date:** 14/09/2021













Accreditation No: BPAD 37802  
Accreditation Expiry: December 2021

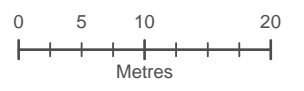
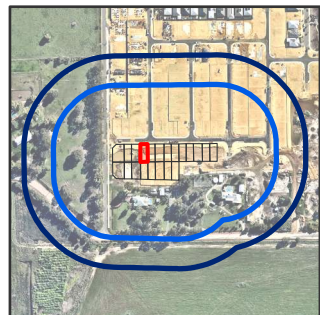




**Bushfire Attack Level (BAL) Certificate - Lot 312 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021



# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 313, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959: 2018.

**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 





**Certificate Date:** 14/09/2021









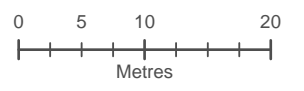
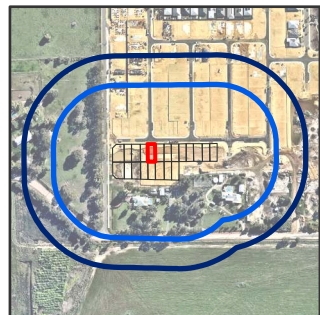
Accreditation No: BPAD 37802  
Accreditation Expiry: December 2021



**Bushfire Attack Level (BAL) Certificate - Lot 313 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021





# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 314, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959: 2018.

**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 





**Certificate Date:** 14/09/2021









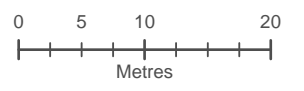
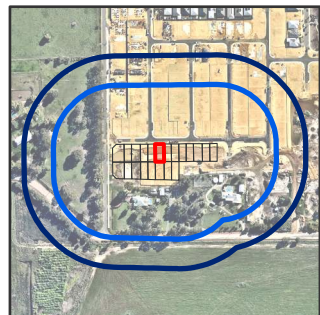
Accreditation No: BPAD 37802  
Accreditation Expiry: December 2021



**Bushfire Attack Level (BAL) Certificate - Lot 314 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021



# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 315, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959: 2018.

**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 

**Certificate Date:** 14/09/2021













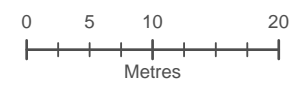
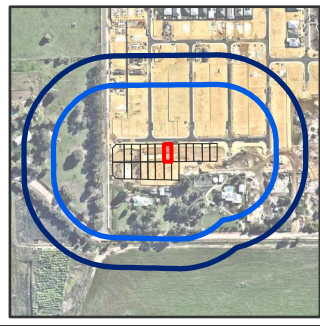
Accreditation No: BPAD 37802  
Accreditation Expiry: December 2021





**Bushfire Attack Level (BAL) Certificate - Lot 315 (BAL - LOW)**

- |  |  |
|--|--|
|  Lot boundary              | <b>Bushfire Attack Level (BAL)</b>   |
|  100m site assessment      |  BAL - FZ   |
|  150m site assessment      |  BAL - 40   |
|  Bushfire hazard interface |  BAL - 29   |
|  |  BAL - 19   |
|  |  BAL - 12.5 |
|  |  BAL - LOW  |



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021



# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 316, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959: 2018.

**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 





**Certificate Date:** 14/09/2021









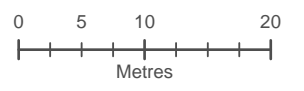
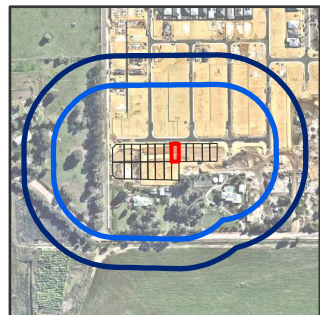
Accreditation No: BPAD 37802  
Accreditation Expiry: December 2021



**Bushfire Attack Level (BAL) Certificate - Lot 316 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021





# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 481, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959: 2018.

**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 





**Certificate Date:** 14/09/2021









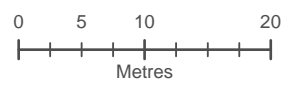
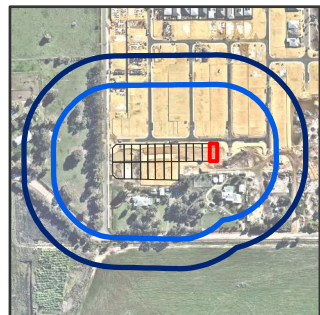
Accreditation No: BPAD 37802  
Accreditation Expiry: December 2021



**Bushfire Attack Level (BAL) Certificate - Lot 481 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021

# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 482, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959: 2018.

**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 

**Certificate Date:** 14/09/2021













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Accreditation Expiry: December 2021

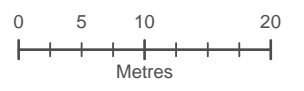
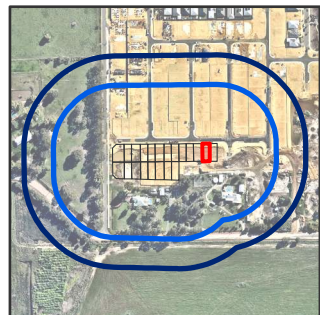




**Bushfire Attack Level (BAL) Certificate - Lot 482 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021

# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 483, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959: 2018.

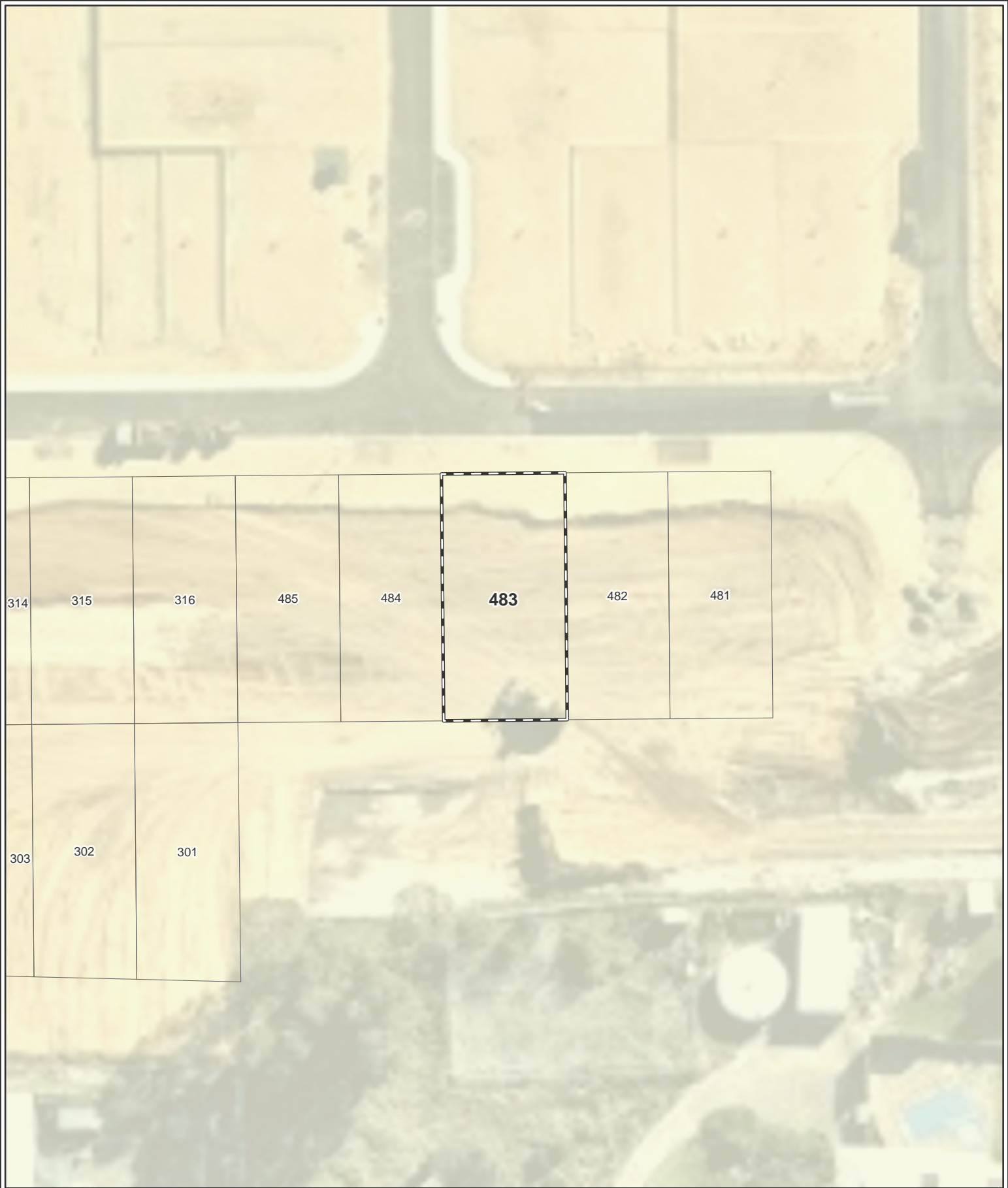
**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 





**Certificate Date:** 14/09/2021









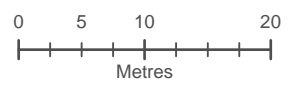
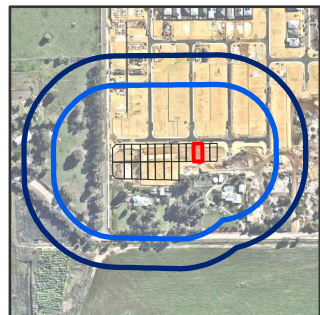
Accreditation No: BPAD 37802  
Accreditation Expiry: December 2021



**Bushfire Attack Level (BAL) Certificate - Lot 483 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021





# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 484, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

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**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 





**Certificate Date:** 14/09/2021









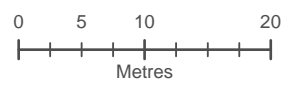
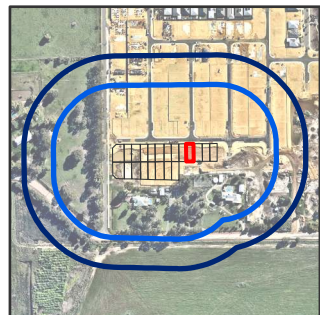
Accreditation No: BPAD 37802  
Accreditation Expiry: December 2021



**Bushfire Attack Level (BAL) Certificate - Lot 484 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
Project: 19133-SM Date: 14/09/2021

# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959: 2018

## Site Details

<b>Address:</b>	Lot 485, Beenyup Grove, Stage 9		
<b>Suburb:</b>	Byford, 6122	<b>State:</b>	WA
<b>Local Government Area:</b>	Shire of Serpentine Jarrahdale		
<b>Use of building</b>	Residential Dwelling	<b>Main BCA class:</b>	Class 1a
<b>Report / Job Number:</b>	21PER-19133	<b>Report Date:</b>	15/09/2021

## Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance	BAL
Method 1	N/A	N/A	N/A	BAL - LOW

## Practitioner Details

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959: 2018.

**Name** Daniel Panickar  
*Eco Logical Australia*

**Signature:** 

**Certificate Date:** 14/09/2021













Accreditation No: BPAD 37802  
Accreditation Expiry: December 2021

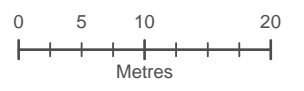
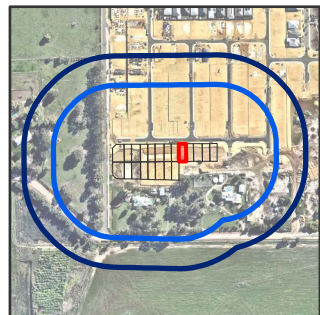




**Bushfire Attack Level (BAL) Certificate - Lot 485 (BAL - LOW)**

-  Lot boundary
-  100m site assessment
-  150m site assessment
-  Bushfire hazard interface

- Bushfire Attack Level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



Datum/Projection:  
GDA 1994 MGA Zone 50  
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