

Re: Bushfire Attack Level (BAL) Assessment Report for **Stages 1 and 2, Beenyup Grove Estate, Byford**

**Site Details**

**Address:** Beenyup Grove Estate, Stages 1 and 2 (Lots 370, 602, 603, 604, 609, 612, 614, 615, 617, 618, 619, 626, 629, 671, 685, 699, 704, 705, 713, 714, 718, 727 and 731)

**Suburb:** Byford, 6155 **State:** Western Australia

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

**Description of building works:** Residential development, future buildings

**Report details**

<b>Report/Job number:</b>	20PER-15870	<b>Report version:</b>	v1
<b>Assessment date:</b>	21/04/2020	<b>Report date:</b>	28/04/2020
<b>Author:</b>	James Leonard and Daniel Panickar	<b>Review:</b>	Daniel Panickar (BPAD Level 3 – 37802)



**SITE ASSESSMENT AND SITE PLAN**

The assessment of the 23 subject lots was undertaken on 21 April 2020 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.

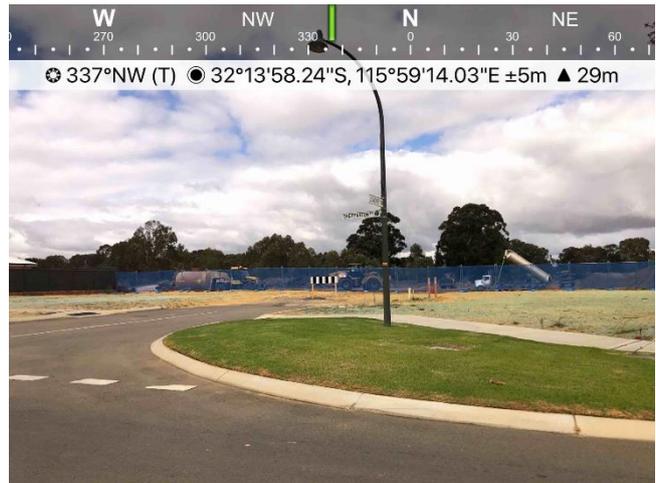
**VEGETATION CLASSIFICATION**

All vegetation within 100 m of the 23 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 Excluded under clause 2.2.3.2 (e) and (f)

**Photo Point 1**

This plot has been excluded under Clause 2.2.3.2 (e) & (f) of AS 3959-2018. This area contains residential development. Land in the background is currently being cleared.



Plot 1 Classification or Exclusion Clause Excluded under clause 2.2.3.2 (e) and (f)

**Photo Point 2**

This plot has been excluded under Clause 2.2.3.2 (e) & (f) of AS 3959-2018. This photo depicts 119 Doley Road which is an area of low threat, maintained vegetation slashed on a regular basis as part of a landowner agreement between Parcel Property and the landholder.



Plot 1 Classification or Exclusion Clause Excluded under clause 2.2.3.2 (e) and (f)

**Photo Point 3**

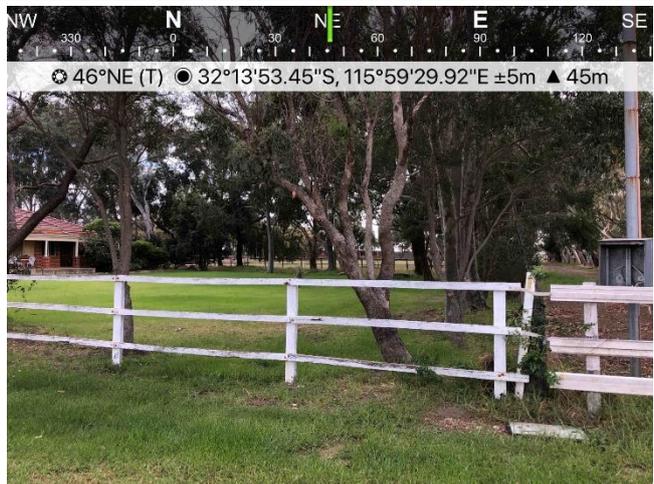
This plot has been excluded under Clause 2.2.3.2 (e) & (f) of AS 3959-2018. This photo depicts a neighbouring property which contains low threat, maintained vegetation.



Plot 1 Classification or Exclusion Clause Excluded under clause 2.2.3.2 (e) and (f)

**Photo Point 4**

This plot has been excluded under Clause 2.2.3.2 (e) & (f) of AS 3959-2018. This photo depicts a neighbouring property which contains low threat, maintained vegetation.



Plot 1 Classification or Exclusion Clause Excluded under clause 2.2.3.2 (e) and (f)

**Photo Point 5**

This plot has been excluded under Clause 2.2.3.2 (e) & (f) of AS 3959-2018. This photo depicts a neighbouring property which contains low threat, maintained vegetation.



Plot 1 Classification or Exclusion Clause Excluded under clause 2.2.3.2 (e) and (f)

**Photo Point 6**

This plot has been excluded under Clause 2.2.3.2 (e) & (f) of AS 3959-2018. This photo depicts an area of Public Open Space within Beenyup Grove Estate which contains low threat, maintained vegetation.



Plot 1 Classification or Exclusion Clause Excluded under clause 2.2.3.2 (e) and (f)

**Photo Point 7**

This plot has been excluded under Clause 2.2.3.2 (e) & (f) of AS 3959-2018. This photo depicts a land within Beenyup Grove Estate that has been recently cleared for development.



Plot 1 Classification or Exclusion Clause Excluded under clause 2.2.3.2 (e) and (f)

**Photo Point 8**

This plot has been excluded under Clause 2.2.3.2 (e) & (f) of AS 3959-2018. This photo depicts a land within Beenyup Grove Estate that has been recently cleared for development.



## 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	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 2.

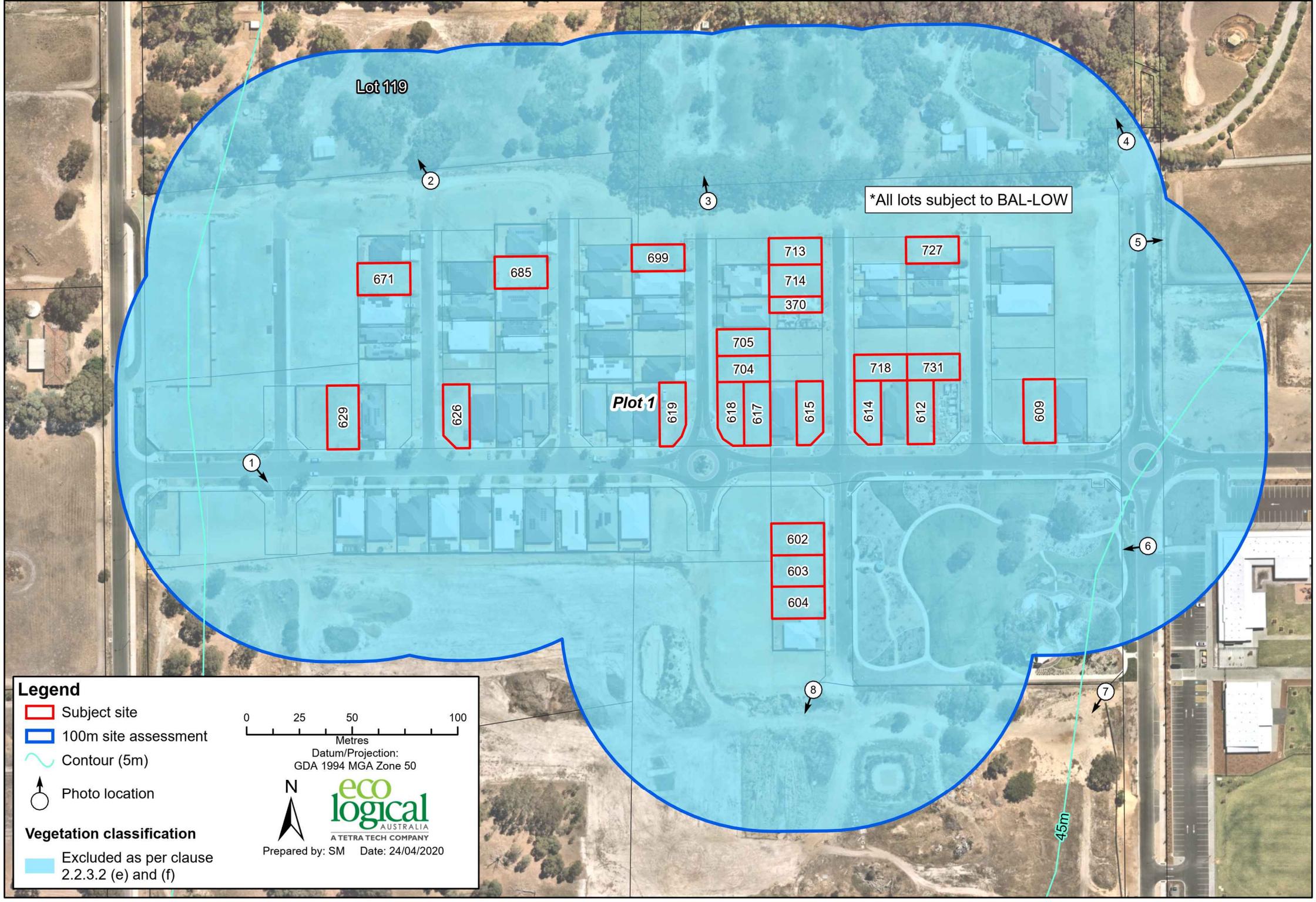
**Table 2: BAL Assessment summary**

BAL	Affected lots	Construction sections to be consulted in AS 3959-2018
BAL-LOW	Determined Bushfire Attack Level for: Lots 370, 602, 603, 604, 609, 612, 614, 615, 617, 618, 619, 626, 629, 671, 685, 699, 704, 705, 713, 714, 718, 727 and 731	4

Note: Parcel Property have a current landowner agreement on several properties adjacent to the Beenypup Stage 3 subdivision including 119 Doley Road, whereby the lot will be managed as low threat vegetation in perpetuity.

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

**Figure 1: Vegetation Classification**

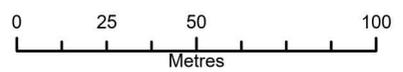


**Legend**

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

**Vegetation classification**

- Excluded as per clause 2.2.3.2 (e) and (f)



Datum/Projection:  
GDA 1994 MGA Zone 50



Prepared by: SM Date: 24/04/2020

## Appendix A – Additional Information / Advisory Notes

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 370, Beenyup Grove Estate Stages 1 and 2		
<b>Suburb:</b>	Byford, 6155	<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>	20PER-15870	<b>Report Date:</b>	28/04/2020

## 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:** 28/04/2020



Accreditation No: BPAD 37802  
Expiry: December 2020

# Bushfire Attack Level (BAL) Contours - Lot 370 (BAL - LOW)



**Legend**  
[Dashed box] Lot location  
[Blue outline] 100m site assessment

Bushfire attack level (BAL)	
[Red]	BAL - FZ
[Orange]	BAL - 40
[Yellow]	BAL - 29
[Blue]	BAL - 19
[Light Blue]	BAL - 12.5
[Light Green]	BAL - LOW



0 4.25 8.5 17  
Metres  
Datum/Projection: GDA 1994 MGA Zone 50

N  
**eco logical**  
AUSTRALIA  
A TETRA TECH COMPANY  
Prepared by: SM Date: 24/04/2020

# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959-2018

## Site Details

<b>Address:</b>	Lot 602, Beenyup Grove Estate Stages 1 and 2		
<b>Suburb:</b>	Byford, 6155	<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>	20PER-15870	<b>Report Date:</b>	28/04/2020

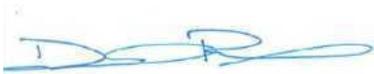
## Determination of Highest Bushfire Attack Level

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:** 28/04/2020



Accreditation No: BPAD 37802  
Expiry: December 2020

# Bushfire Attack Level (BAL) Contours - Lot 602 (BAL - LOW)



**Legend**  
 Lot location  
 100m site assessment

Bushfire attack level (BAL)	
	BAL - FZ
	BAL - 40
	BAL - 29
	BAL - 19
	BAL - 12.5
	BAL - LOW



0 4.25 8.5 17  
Metres  
Datum/Projection:  
GDA 1994 MGA Zone 50

# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959-2018

## Site Details

<b>Address:</b>	Lot 603, Beenyup Grove Estate Stages 1 and 2		
<b>Suburb:</b>	Byford, 6155	<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>	20PER-15870	<b>Report Date:</b>	28/04/2020

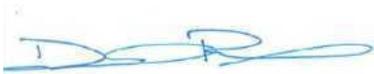
## Determination of Highest Bushfire Attack Level

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:** 28/04/2020



Accreditation No: BPAD 37802  
Expiry: December 2020

# Bushfire Attack Level (BAL) Contours - Lot 603 (BAL - LOW)



**Legend**  
[Dashed box] Lot location  
[Blue outline] 100m site assessment

Bushfire attack level (BAL)	
[Red]	BAL - FZ
[Orange]	BAL - 40
[Yellow]	BAL - 29
[Light Blue]	BAL - 19
[Lighter Blue]	BAL - 12.5
[Lightest Blue]	BAL - LOW



0 4.25 8.5 17  
Metres  
Datum/Projection:  
GDA 1994 MGA Zone 50

# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959-2018

## Site Details

<b>Address:</b>	Lot 604, Beenyup Grove Estate Stages 1 and 2		
<b>Suburb:</b>	Byford, 6155	<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>	20PER-15870	<b>Report Date:</b>	28/04/2020

## 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*

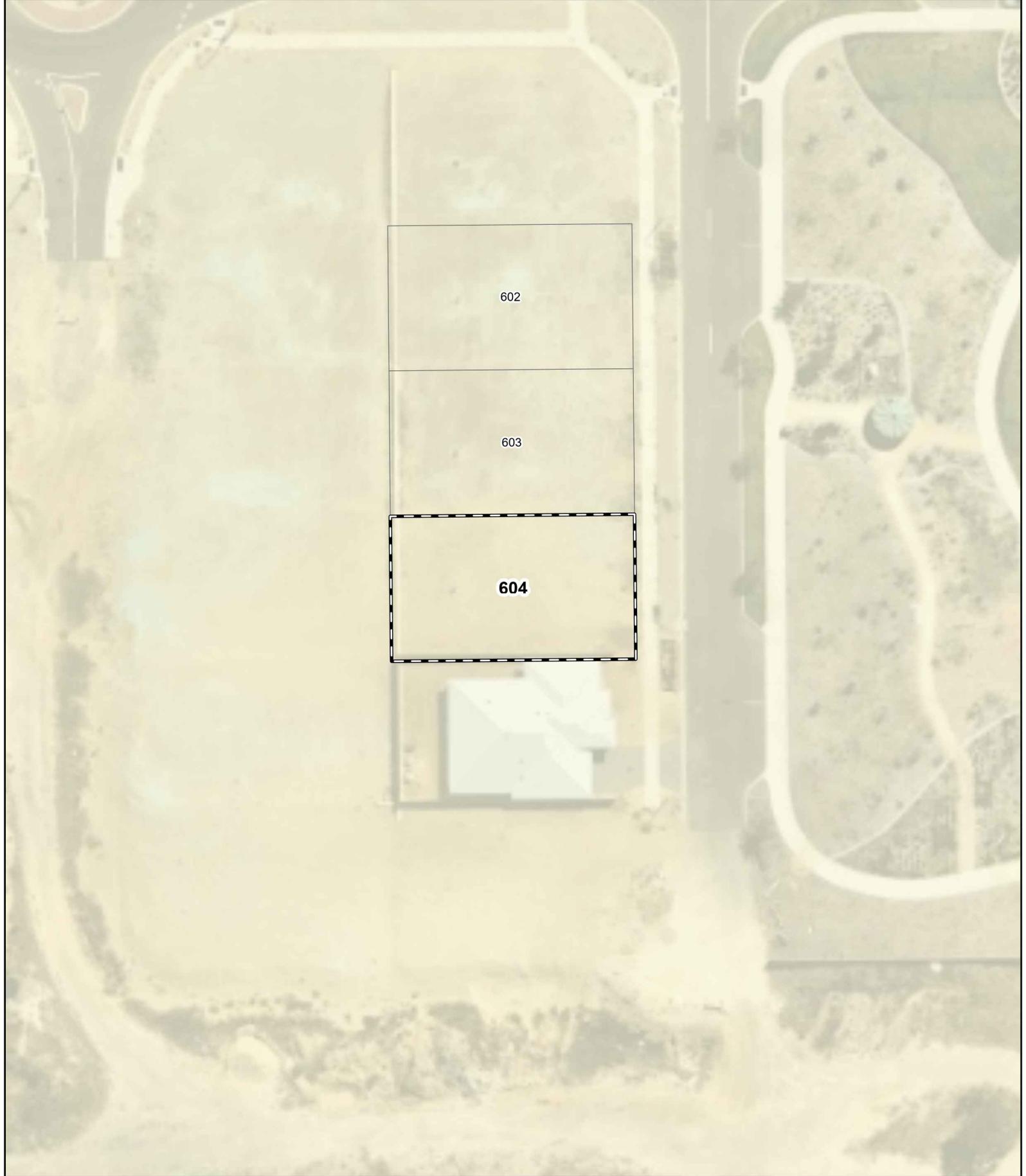
**Signature:** 

**Certificate Date:** 28/04/2020



Accreditation No: BPAD 37802  
Expiry: December 2020

# Bushfire Attack Level (BAL) Contours - Lot 604 (BAL - LOW)



**Legend**  
 Lot location  
 100m site assessment

- Bushfire attack level (BAL)**
-  BAL - FZ
  -  BAL - 40
  -  BAL - 29
  -  BAL - 19
  -  BAL - 12.5
  -  BAL - LOW



0 4.25 8.5 17  
Metres  
Datum/Projection:  
GDA 1994 MGA Zone 50



# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959-2018

## Site Details

<b>Address:</b>	Lot 609, Beenyup Grove Estate Stages 1 and 2		
<b>Suburb:</b>	Byford, 6155	<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>	20PER-15870	<b>Report Date:</b>	28/04/2020

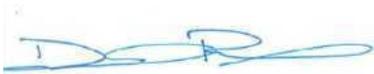
## Determination of Highest Bushfire Attack Level

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:** 28/04/2020



Accreditation No: BPAD 37802  
Expiry: December 2020

# Bushfire Attack Level (BAL) Contours - Lot 609 (BAL - LOW)



**Legend**  
[Dashed black border] Lot location  
[Blue outline] 100m site assessment

Bushfire attack level (BAL)	
[Red box]	BAL - FZ
[Orange box]	BAL - 40
[Yellow box]	BAL - 29
[Light blue box]	BAL - 19
[Medium blue box]	BAL - 12.5
[Light green box]	BAL - LOW



0 4.25 8.5 17  
Metres  
Datum/Projection:  
GDA 1994 MGA Zone 50

# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959-2018

## Site Details

<b>Address:</b>	Lot 612, Beenyup Grove Estate Stages 1 and 2		
<b>Suburb:</b>	Byford, 6155	<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>	20PER-15870	<b>Report Date:</b>	28/04/2020

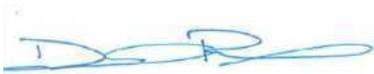
## Determination of Highest Bushfire Attack Level

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*

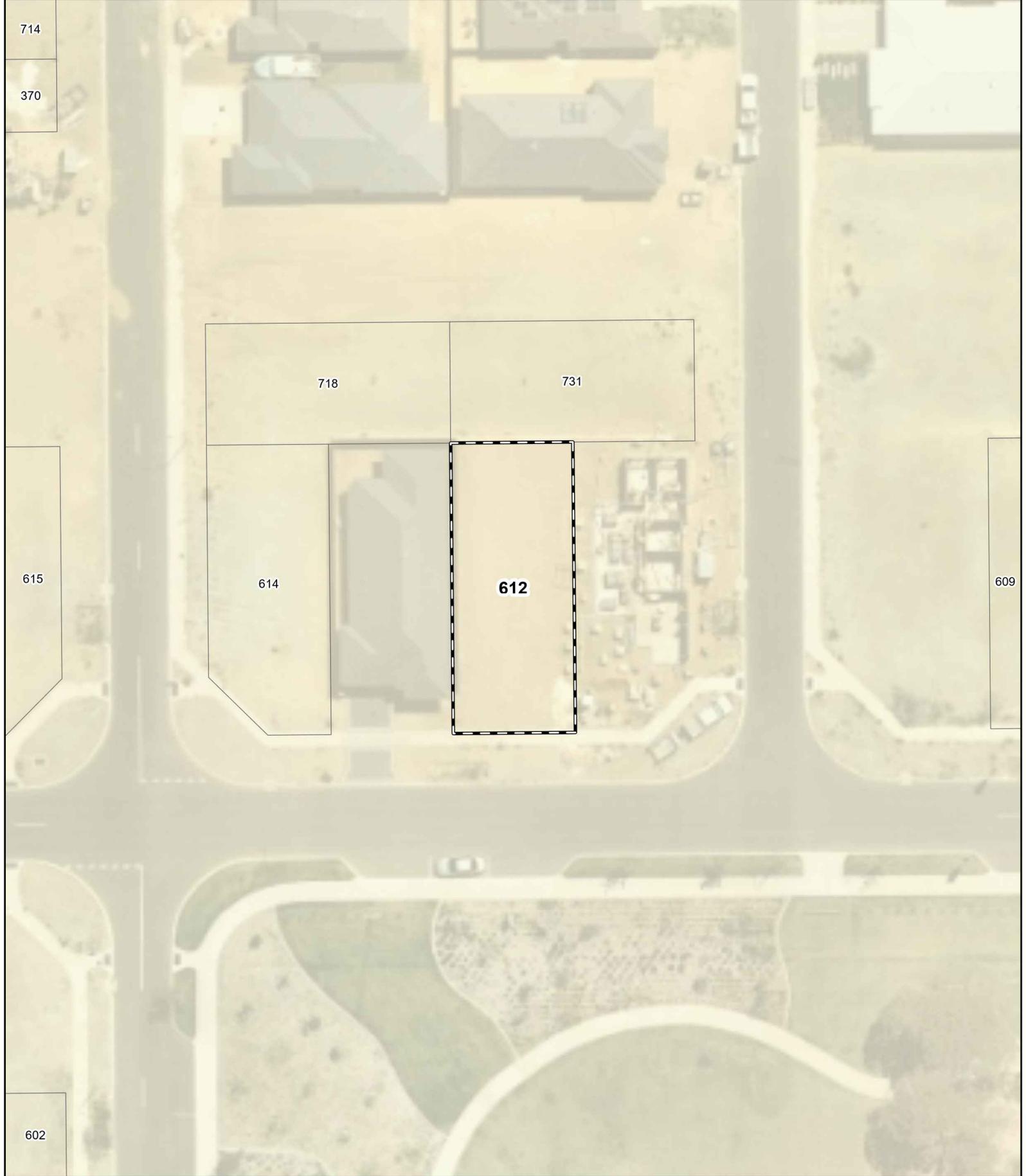
**Signature:** 

**Certificate Date:** 28/04/2020



Accreditation No: BPAD 37802  
Expiry: December 2020

# Bushfire Attack Level (BAL) Contours - Lot 612 (BAL - LOW)



**Legend**  
[Dashed black box] Lot location  
[Blue outline] 100m site assessment

Bushfire attack level (BAL)	
[Red box]	BAL - FZ
[Orange box]	BAL - 40
[Yellow box]	BAL - 29
[Light Blue box]	BAL - 19
[Lighter Blue box]	BAL - 12.5
[Lightest Blue box]	BAL - LOW



0 4.25 8.5 17  
Metres  
Datum/Projection:  
GDA 1994 MGA Zone 50

N  
**eco logical**  
AUSTRALIA  
A TETRA TECH COMPANY  
Prepared by: SM Date: 24/04/2020

# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959-2018

## Site Details

<b>Address:</b>	Lot 614, Beenyup Grove Estate Stages 1 and 2		
<b>Suburb:</b>	Byford, 6155	<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>	20PER-15870	<b>Report Date:</b>	28/04/2020

## 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*

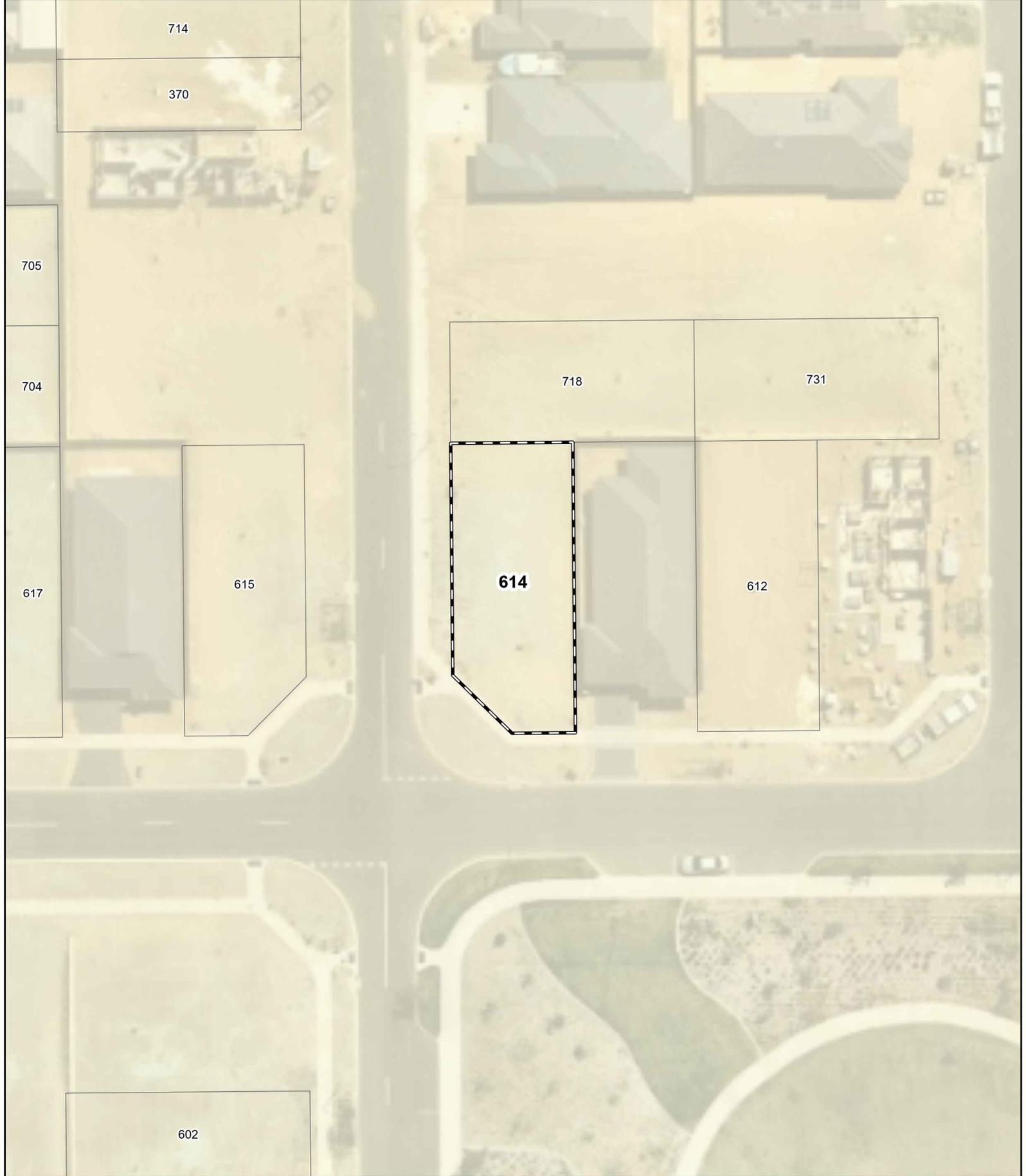
**Signature:** 

**Certificate Date:** 28/04/2020



Accreditation No: BPAD 37802  
Expiry: December 2020

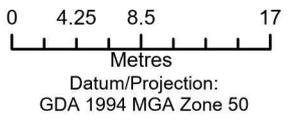
# Bushfire Attack Level (BAL) Contours - Lot 614 (BAL - LOW)



**Legend**  
 Lot location  
 100m site assessment

**Bushfire attack level (BAL)**

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



# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959-2018

## Site Details

<b>Address:</b>	Lot 615, Beenyup Grove Estate Stages 1 and 2		
<b>Suburb:</b>	Byford, 6155	<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>	20PER-15870	<b>Report Date:</b>	28/04/2020

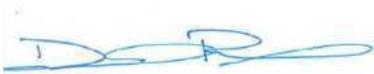
## Determination of Highest Bushfire Attack Level

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*

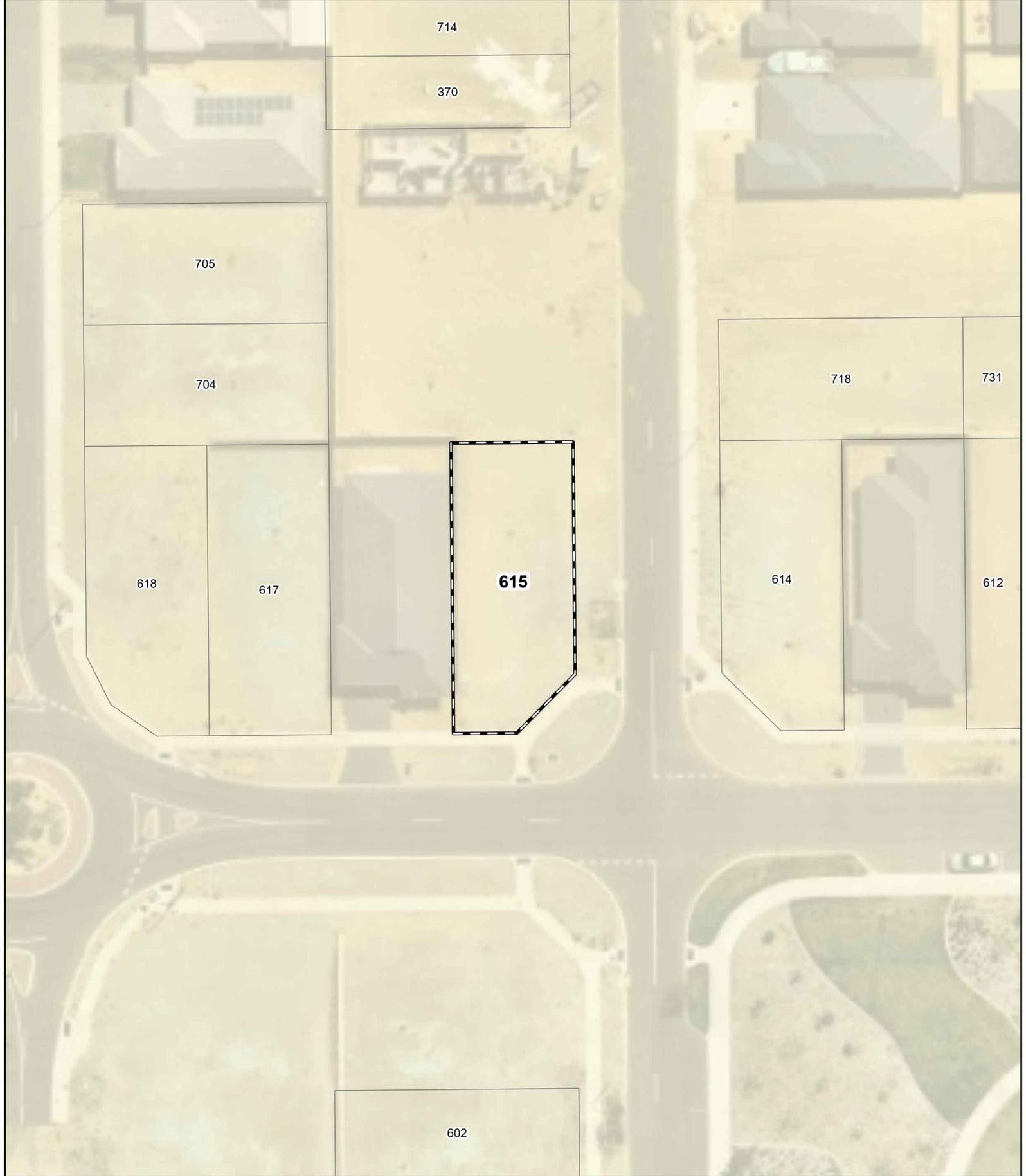
**Signature:** 

**Certificate Date:** 28/04/2020



Accreditation No: BPAD 37802  
Expiry: December 2020

# Bushfire Attack Level (BAL) Contours - Lot 615 (BAL - LOW)



**Legend**  
[Dashed black box] Lot location  
[Blue outline box] 100m site assessment

Bushfire attack level (BAL)	
[Red box]	BAL - FZ
[Orange box]	BAL - 40
[Yellow box]	BAL - 29
[Light Blue box]	BAL - 19
[Lighter Blue box]	BAL - 12.5
[Lightest Blue box]	BAL - LOW



0 4.25 8.5 17  
Metres  
Datum/Projection:  
GDA 1994 MGA Zone 50

N  
**eco logical**  
AUSTRALIA  
A TETRA TECH COMPANY  
Prepared by: SM Date: 24/04/2020

# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959-2018

## Site Details

<b>Address:</b>	Lot 617, Beenyup Grove Estate Stages 1 and 2		
<b>Suburb:</b>	Byford, 6155	<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>	20PER-15870	<b>Report Date:</b>	28/04/2020

## 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:** 28/04/2020



Accreditation No: BPAD 37802  
Expiry: December 2020

# Bushfire Attack Level (BAL) Contours - Lot 617 (BAL - LOW)



**Legend**  
 Lot location  
 100m site assessment

**Bushfire attack level (BAL)**

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



0 4.25 8.5 17  
 Metres  
 Datum/Projection:  
 GDA 1994 MGA Zone 50

**eco logical AUSTRALIA**  
 A TETRA TECH COMPANY  
 Prepared by: SM Date: 24/04/2020

# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959-2018

## Site Details

<b>Address:</b>	Lot 618, Beenyup Grove Estate Stages 1 and 2		
<b>Suburb:</b>	Byford, 6155	<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>	20PER-15870	<b>Report Date:</b>	28/04/2020

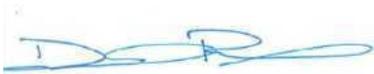
## Determination of Highest Bushfire Attack Level

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*

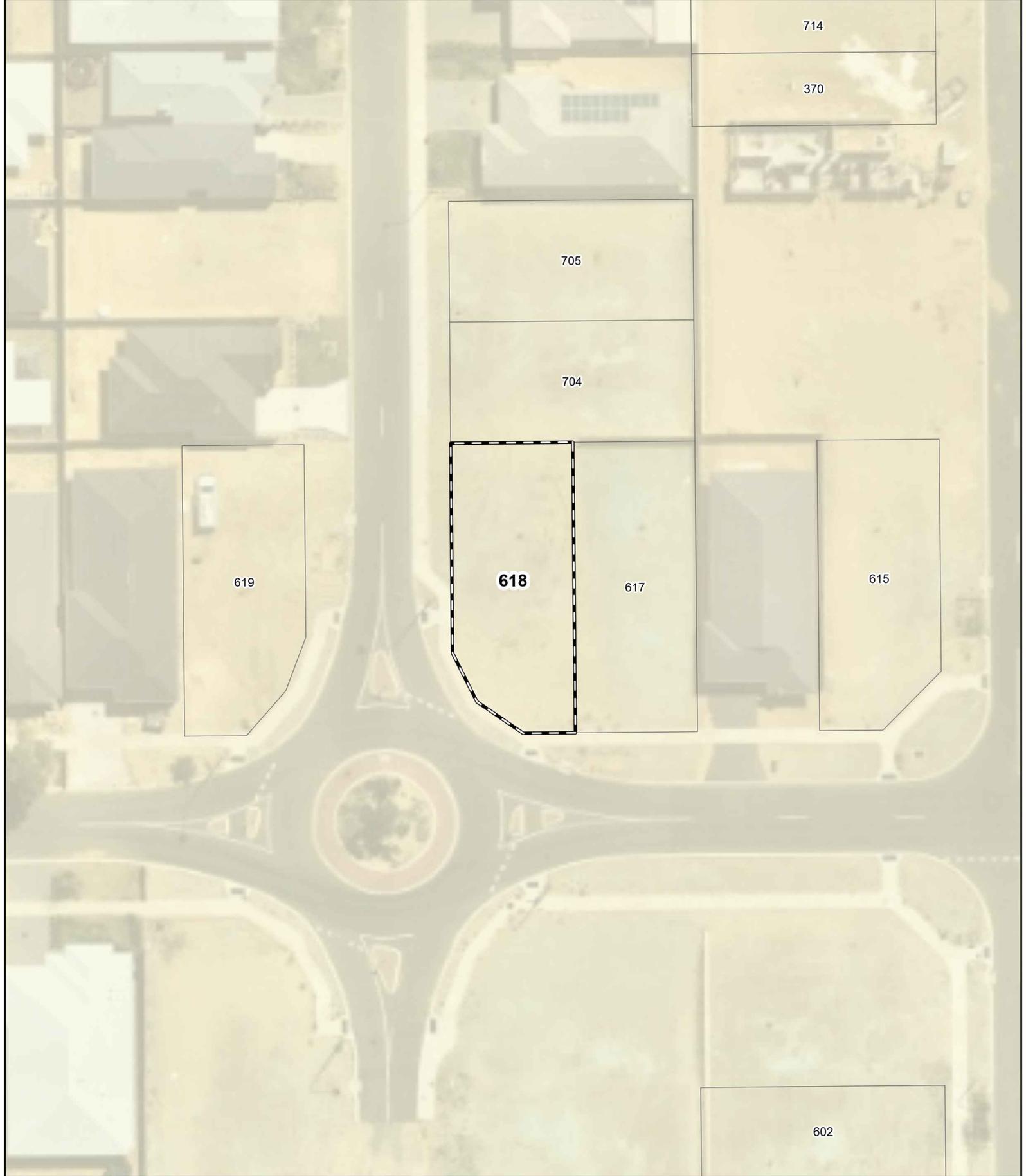
**Signature:** 

**Certificate Date:** 28/04/2020



Accreditation No: BPAD 37802  
Expiry: December 2020

# Bushfire Attack Level (BAL) Contours - Lot 618 (BAL - LOW)



**Legend**  
[Dashed black box] Lot location  
[Blue outline] 100m site assessment

- Bushfire attack level (BAL)**
- [Red] BAL - FZ
  - [Orange] BAL - 40
  - [Yellow] BAL - 29
  - [Light Blue] BAL - 19
  - [Lighter Blue] BAL - 12.5
  - [Lightest Blue] BAL - LOW



0 4.25 8.5 17  
Metres  
Datum/Projection:  
GDA 1994 MGA Zone 50

N  
**eco logical**  
AUSTRALIA  
A TETRA TECH COMPANY  
Prepared by: SM Date: 24/04/2020

# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959-2018

## Site Details

<b>Address:</b>	Lot 704, Beenyup Grove Estate Stages 1 and 2		
<b>Suburb:</b>	Byford, 6155	<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>	20PER-15870	<b>Report Date:</b>	28/04/2020

## 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:** 28/04/2020



Accreditation No: BPAD 37802  
Expiry: December 2020

# Bushfire Attack Level (BAL) Contours - Lot 704 (BAL - LOW)



**Legend**  
 Lot location  
 100m site assessment

**Bushfire attack level (BAL)**

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



0 4.25 8.5 17  
 Metres  
 Datum/Projection:  
 GDA 1994 MGA Zone 50

# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959-2018

## Site Details

<b>Address:</b>	Lot 713, Beenyup Grove Estate Stages 1 and 2		
<b>Suburb:</b>	Byford, 6155	<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>	20PER-15870	<b>Report Date:</b>	28/04/2020

## 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:** 28/04/2020



Accreditation No: BPAD 37802  
Expiry: December 2020

# Bushfire Attack Level (BAL) Contours - Lot 713 (BAL - LOW)



**Legend**  
[Dashed box] Lot location  
[Blue outline] 100m site assessment

- Bushfire attack level (BAL)**
- [Red] BAL - FZ
  - [Orange] BAL - 40
  - [Yellow] BAL - 29
  - [Light Blue] BAL - 19
  - [Lighter Blue] BAL - 12.5
  - [Lightest Blue] BAL - LOW



0 4.25 8.5 17  
Metres  
Datum/Projection:  
GDA 1994 MGA Zone 50

N  
**eco logical**  
AUSTRALIA  
A TETRA TECH COMPANY  
Prepared by: SM Date: 24/04/2020

# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959-2018

## Site Details

<b>Address:</b>	Lot 714, Beenyup Grove Estate Stages 1 and 2		
<b>Suburb:</b>	Byford, 6155	<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>	20PER-15870	<b>Report Date:</b>	28/04/2020

## 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*

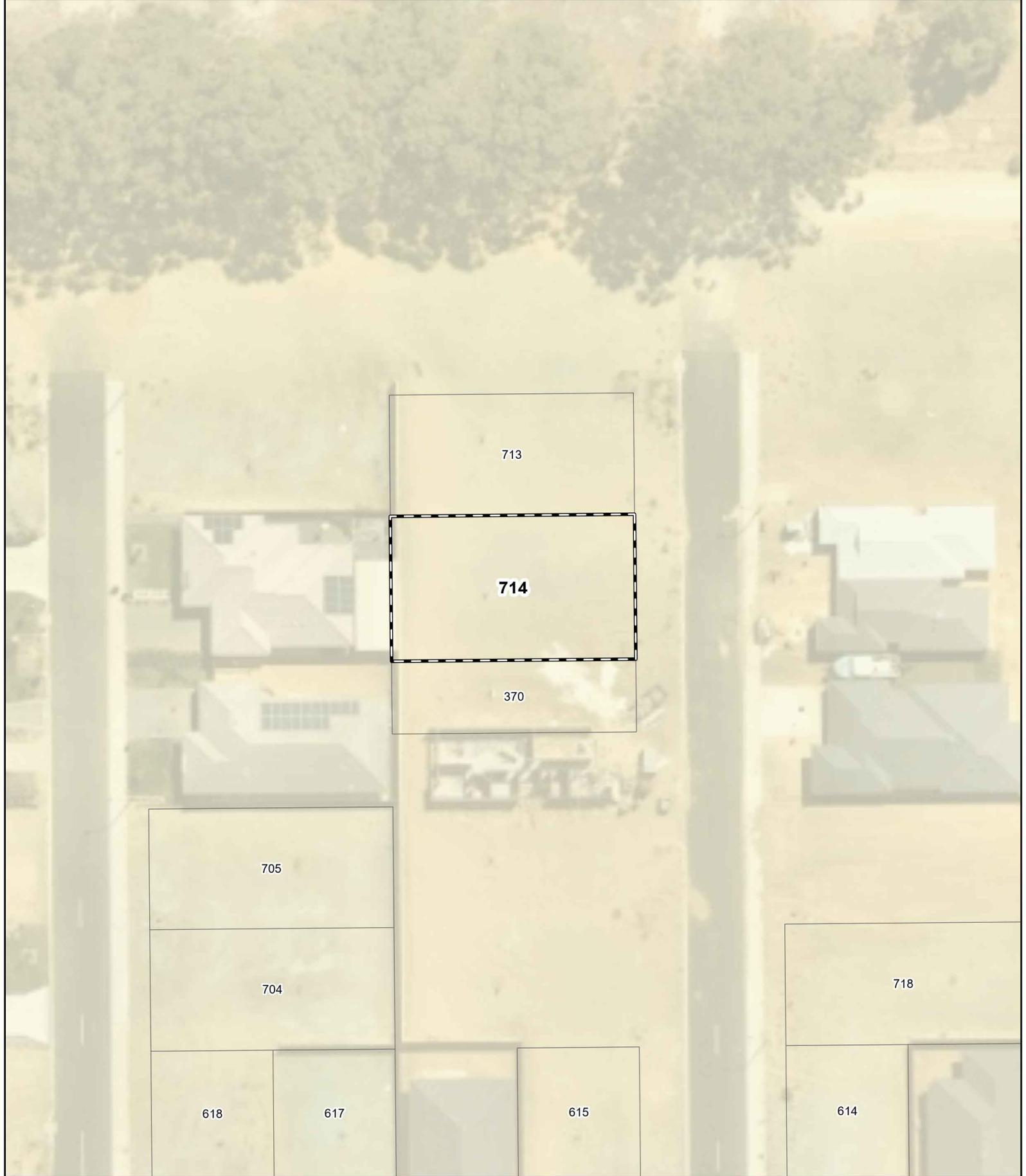
**Signature:** 

**Certificate Date:** 28/04/2020



Accreditation No: BPAD 37802  
Expiry: December 2020

# Bushfire Attack Level (BAL) Contours - Lot 714 (BAL - LOW)



**Legend**  
[Dashed box] Lot location  
[Blue outline] 100m site assessment

Bushfire attack level (BAL)	
[Red]	BAL - FZ
[Orange]	BAL - 40
[Yellow]	BAL - 29
[Light Blue]	BAL - 19
[Medium Blue]	BAL - 12.5
[Light Green]	BAL - LOW



0 4.25 8.5 17  
Metres  
Datum/Projection:  
GDA 1994 MGA Zone 50

N  
**eco logical**  
AUSTRALIA  
A TETRA TECH COMPANY  
Prepared by: SM Date: 24/04/2020

# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959-2018

## Site Details

<b>Address:</b>	Lot 718, Beenyup Grove Estate Stages 1 and 2		
<b>Suburb:</b>	Byford, 6155	<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>	20PER-15870	<b>Report Date:</b>	28/04/2020

## 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:** 28/04/2020



Accreditation No: BPAD 37802  
Expiry: December 2020

# Bushfire Attack Level (BAL) Contours - Lot 718 (BAL - LOW)



**Legend**  
 Lot location  
 100m site assessment

**Bushfire attack level (BAL)**

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



0 4.25 8.5 17  
 Metres  
 Datum/Projection:  
 GDA 1994 MGA Zone 50

 **eco logical** AUSTRALIA  
 A TETRA TECH COMPANY  
 Prepared by: SM Date: 24/04/2020

# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959-2018

## Site Details

<b>Address:</b>	Lot 727, Beenyup Grove Estate Stages 1 and 2		
<b>Suburb:</b>	Byford, 6155	<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>	20PER-15870	<b>Report Date:</b>	28/04/2020

## 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:** 28/04/2020



Accreditation No: BPAD 37802  
Expiry: December 2020

# Bushfire Attack Level (BAL) Contours - Lot 727 (BAL - LOW)

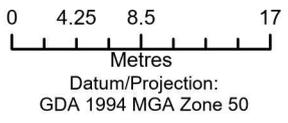


## Legend

-  Lot location
-  100m site assessment

### Bushfire attack level (BAL)

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



# Bushfire Attack Level (BAL) Certificate

Determined in accordance with AS 3959-2018

## Site Details

<b>Address:</b>	Lot 731, Beenyup Grove Estate Stages 1 and 2		
<b>Suburb:</b>	Byford, 6155	<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>	20PER-15870	<b>Report Date:</b>	28/04/2020

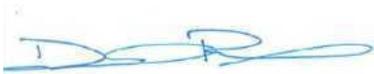
## Determination of Highest Bushfire Attack Level

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:** 28/04/2020



Accreditation No: BPAD 37802  
Expiry: December 2020

# Bushfire Attack Level (BAL) Contours - Lot 731 (BAL - LOW)



**Legend**  
[Dashed box] Lot location  
[Blue outline] 100m site assessment

Bushfire attack level (BAL)	
[Red]	BAL - FZ
[Orange]	BAL - 40
[Yellow]	BAL - 29
[Light Blue]	BAL - 19
[Medium Blue]	BAL - 12.5
[Light Green]	BAL - LOW



0 4.25 8.5 17  
Metres  
Datum/Projection:  
GDA 1994 MGA Zone 50

N  
**eco logical**  
AUSTRALIA  
A TETRA TECH COMPANY  
Prepared by: SM Date: 24/04/2020