



## Newcastle Office

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**Our Ref:** 17029-51B:MD

**Date:** 03 December 2010

Attn: James Goode  
Development Manager  
North Lakes Pty Ltd  
PO Box 2214  
Dangar NSW 2309

Dear James,

### **RE: BUSHFIRE ATTACK LEVELS FOR STAGE 51B NORTHLAKES, CAMERON PARK**

The following has been prepared to provide the key information relating to the construction requirements for future dwellings within lots in Stage 51B, North Lakes Estate, Cameron Park.

The site assessment methodology used for determining the construction requirements for dwellings has been undertaken in accordance with the Building Code of Australia (BCA) and Appendix 3 Addendum of PBP. BCA formally adopted AS3959-2009 as the national standard on 1 May 2010.

The determinations of the appropriate Bushfire Attack Levels (BAL) in accordance with AS3959-2009 are based upon parameters such as weather modelling, fire-line intensity, flame length calculations, as well as vegetation and fuel load analysis. The determination of the construction level is derived by assessing the:

- Relevant FDI = 100
- Flame temperature
- Slope
- Vegetation classification; and
- Building location.

Assessment of the site – Stage 51B and the surrounding land for a distance of 140m has shown that after development of the site and surrounding land the following vegetation and slope this vegetation occurs on is as follows:

- To the immediate north is Wigeon Chase and thereafter forest vegetation
- To the east Stage 41A occurs.
- To the south is forest vegetation with a 45m APZ.
- To the west is forest vegetation with a variable width APZ and large sediment pond..

Using a Forest Danger Index (FDI) of 100, the information relating to vegetation, slope and according to Table 2.4.2 of AS3959-2009, Table 1 and Figure 1 illustrates the required BAL in accordance with AS3959-2009 for future dwellings within Stages 51B. Any lessening of the BAL would require a Performance Based Assessment to be undertaken.

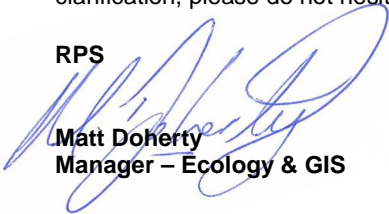
**Table 1: Deemed to Satisfy Bushfire Attack Levels (BAL) for Future Dwellings in Stage 51B.**

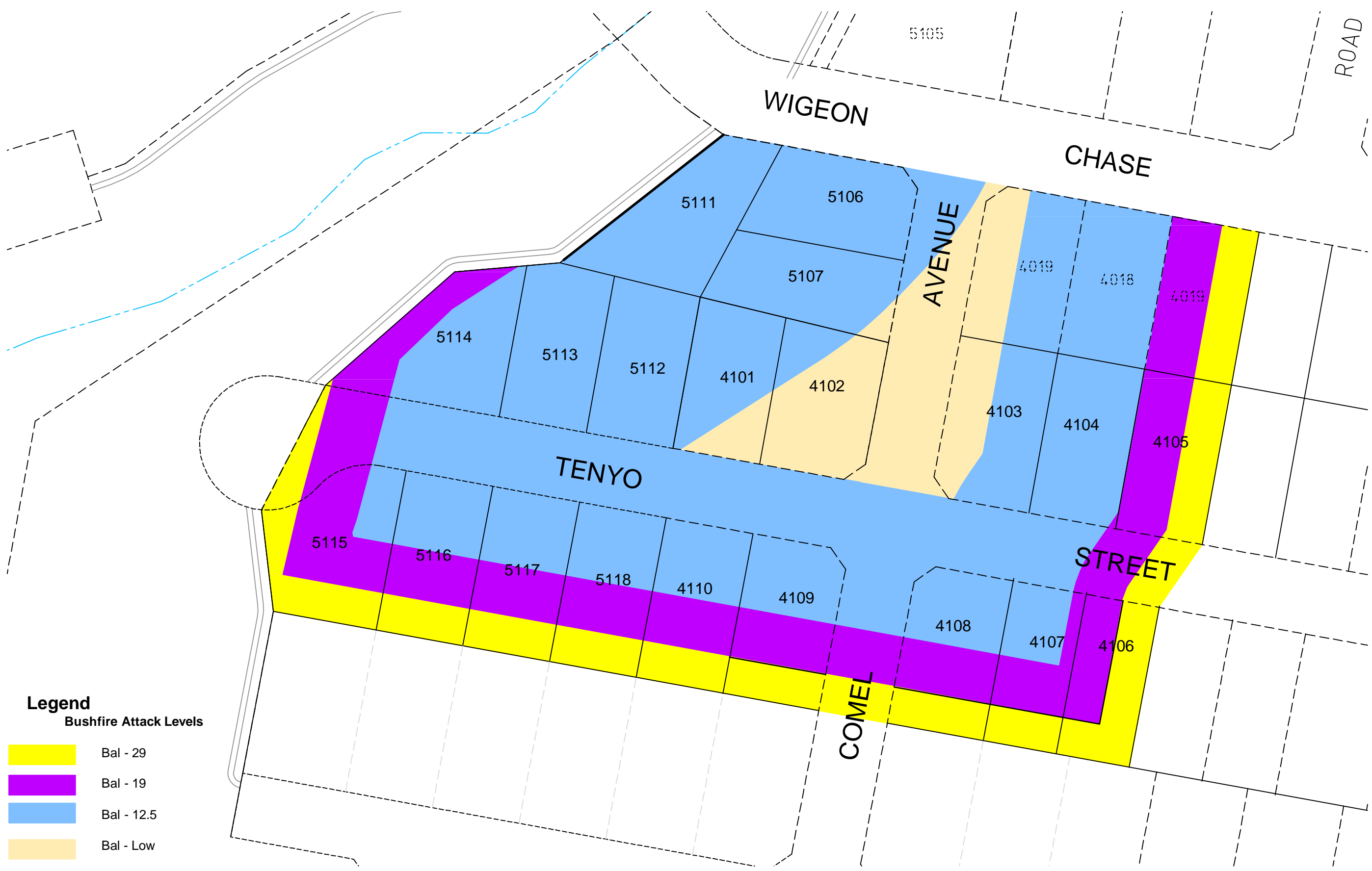
Lot	Direction	Vegetation Type	Average Slope of Land (degrees)	Separation Distance	Bushfire Attack Level (BAL)	Construction Section
5111	North West	Forest	Upslope 0-5°	48-<100m	BAL-12.5	
5112	North West	Forest	Upslope 0-5°	48-<100m	BAL-12.5	
5113	North West	Forest	Upslope 0-5°	48-<100m	BAL-12.5	
5114	North West	Forest	Upslope 0-5°	35-<48m	BAL-19	
				48-<100m	BAL-12.5	
5115	West	Forest	Cross-Slope	25-<35m	BAL-29	
				35-<48m	BAL-19	
	South	Forest	Downslope 5-10°	48-<100m	BAL-12.5	
				45-53m	BAL-29	Sect 4, 5 & 6 of AS3959-2009 and Sect A3.7 of PBP Addendum Appendix 3
South	Forest	Downslope 5-10°	53-69m	BAL-19		
			69-100m	BAL-12.5		
5116	South	Forest	Downslope 5-10°	45-53m	BAL-29	
				53-69m	BAL-19	
5117	South	Forest	Downslope 5-10°	69-100m	BAL-12.5	
				45-53m	BAL-29	
5118	South	Forest	Downslope 5-10°	53-69m	BAL-19	
				69-100m	BAL-12.5	

**To Note:**

1. The construction requirements for the next lower BAL than that determined for the lot may be applied to an elevation of the building where the elevation is not exposed to the source of bushfire attack. An elevation is deemed to be not exposed to the source of bushfire attack if all straight lines between that elevation and the source of bushfire attack are obstructed by another part of the building.
2. The abovementioned BALs will remain inforce until such time that a change in the nature or extent of vegetation within 100m of a subject lot changes. At this time a revised BAL may apply following reassessment.

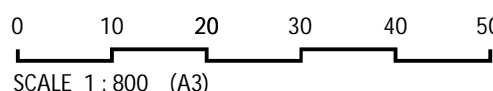
We trust this information is sufficient for your purposes, however should you require any further details or clarification, please do not hesitate to contact the writer.

RPS  
  
**Matt Doherty**  
**Manager – Ecology & GIS**



**Legend**  
Bushfire Attack Levels

- Bal - 29
- Bal - 19
- Bal - 12.5
- Bal - Low



TITLE: FIGURE BUSHFIRE ATTACK LEVELS

LOCATION: NORTHLAKES ESTATE (STAGE 41 A & 51 B)

DATUM: N/A  
PROJECTION: MGA

DATE: 3/12/2010  
PURPOSE: BTA

AUTOCAD REF: 17029-51B BUSHFIRE ZONES  
VERSION (PLAN BY): A A3 (NW - MD)

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CLIENT: NORTHLAKES  
JOB REF: 17029

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