

11 July 2012

Michael Rumble
Development Manager
Woolworths Limited
1 Woolworths Way
Bella Vista, NSW, 2153

RE: Bushfire Constraints, Proposed Rezoning on Lot 1 DP 1049201, 233 Scenic Drive, Colongra.

Dear Michael,

I have assessed the bushfire constraints on the study area for the proposed commercial development at 223 Scenic Drive, Colongra. The assessment involved determining the vegetation types, slopes, access, water supply, and other bushfire-related constraints relating to the proposal. Preparation of the rezoning proposal will provide an outline of the likely bushfire constraints of the site for future development for commercial purposes.

Vegetation and Slopes

Bushfire prone vegetation is located within and adjacent to the site to the north and west. The vegetation is classified as Open Forest (Keith 2004); Figure 1 maps the bushfire prone vegetation and current bushfire attack levels (BAL) over the site. The remaining areas within and surrounding the site are non-vegetated and consist of existing roads and residential development. The effective slopes of the vegetation on the site range from flat/upslope to 0-5 degrees downslope.

Proposed Development and Minimum Setbacks

The proposed development is likely to consist of Class 6 buildings (shops and retail stores), and Class 7 (car parks) buildings/structures under the BCA 2010. These building classes are considered as 'Other Development' under Planning for Bushfire Protection (PBP) (2006).

The BCA does not provide any bushfire specific performance requirements for these building classes, and AS3959-2009 does not apply as a set of 'deemed to



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satisfy' (DTS) provisions. In general the BCA fire safety construction provisions for Class 5-8 buildings are taken as acceptable solutions and the proposal can be assessed under section 79BA of the EP&A Act. Therefore, this type of development does not require a Bush Fire Safety Authority (BFSA) from the NSW RFS. However, the aims and objectives of PBP apply in relation to other matters such as access, water and services, emergency planning and landscape/vegetation management.

A minimum 10m setback from bushfire prone vegetation and the proposed development would be required under these circumstances. This setback would provide a suitable defensible space between the bushfire hazard and the building(s). However, it is advisable to locate buildings outside of the Flame Zone (see Figure 1). The highest BAL level in which the proposed building complex is wholly or partially located within will be the required construction standards (e.g. BAL-40 construction standards).

Access

The proposed development would be accessed directly via Scenic Drive; the current public road network meets the relevant performance criteria of PBP and would provide alternative access/egress for the proposed development.

Internal roads within the proposed development should meet the requirements of Chapter 4, PBP (2006) and be designed to accommodate emergency fire fighters vehicles. The key requirements include:

- Internal roads are two-wheel drive, sealed, all weather roads;
- Minimum road width of four metres incorporating turning bays with a minimum width of 6m or cul-de-sacs with a minimum 12m turning circle;
- Passing bays should be provided every 200 metres (minimum 20m long by 2m wide);
- A minimum vertical clearance of 4m to any overhanging obstructions (including tree branches); and
- The internal road surfaces should have a capacity to carry fully-loaded firefighting vehicles (15 tonnes).

Ideally, the proposed development should incorporate an internal perimeter road between the bushfire prone vegetation and the building(s)/assets; this would



also form part of the minimum 10m setback required from the surrounding vegetation.



Water Supply

As there is currently no water supply across the site, the existing reticulated water system located adjacent to the site will need to be extended to ensure adequate water provisions for fire fighters. This will involve the installation of booster facilities at various locations around the proposed development.

Conclusion

A more detailed bushfire assessment is recommended to be conducted at the development application stage. These assessments will provide specific requirements for APZ, access arrangements, water supply, emergency management and evacuation.

Regards,

A handwritten signature in black ink, reading "A. Mulcahy".

Aaron Mulcahy

Ecologist/Bushfire Consultant

B.Env.Sc.&Mgt Newcastle University

References

Australian Standard 3959-2009: Construction of Buildings in Bushfire-Prone Areas.

Keith, D. (2004). *Ocean Shores to Desert Dunes: The native vegetation of New South Wales and the ACT*. NSW Department of Environment and Conservation.

NSW Rural Fire Service (2006). Planning for Bushfire Protection guidelines. Prepared in cooperation with Planning NSW.



Figure 2 - Bushfire Constraints

Legend

 Study Area	 Flame Zone
 Hydrant	 BAL 40
	 BAL 29
	 BAL 19
	 BAL 12.5



Map Projection:

GDA 1994 MGA Zone 56

Data Sources:

LPMA - 2011
ecobiological - 2011

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Disclaimer: This is not an official or a legal map but is for informational use only. All data was compiled from the best sources available. All boundaries, scale and geographic points are approximate.