

BUSHFIRE PLANNING AND DESIGN CERTIFICATION (Fire Protection Association Australia)

The following report titled and dated;

Supplementary Advice - APZ Compliance for Proposed Rural Residential Subdivision Development Lot 2 DP250984 Grandfathers Gully Road Lilli Pilli , 15th March 2008

has been prepared by;

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Supplementary Advice - APZ Compliance for Proposed Rural Residential Subdivision Development Lot 2 DP250984 Grandfathers Gully Road Lilli Pilli



15th March 2008

The following report is supplementary bushfire compliance advice for the proposed rural residential subdivision of Lot 2 DP250984 Grandfathers Gully Road Lilli Pilli (herewith '*the subject property*').

The following advice is derived from NSW Planning for Bushfire Protection Guidelines (PBP) 2006 and considered opinion / judgment.

Slope and vegetation considered by this report for asset protection zone compliance is as determined by a previous bushfire assessment report for the subject property dated 22/02/06.

Spatial terrain data (slope) used in the previous assessment was derived from 5m Grid digital elevation model (DEM) analysis.

Vegetation extent within or affecting the subject property was derived from available aerial photo interpretation (API) and numerous site inspections undertaken prior to this advice.

Mapped / spatial information as attached to this report is derived from a desktop GIS assessment using the latest plan of proposed subdivision and building sitings as provided by the proponents surveyor.

Asset Protection Zone (APZ) Compliance

APZ compliance within (and directly adjacent to) the subject property is predicated upon two identified constraints affecting the subject property. These constraints include;

- A riparian or water course gully line area identified as *DNR Riparian Category 2* (denoted attached APZ compliance map), &
- Forest or shrub vegetation adjacent to the subject property and likely to persist during the life of any future residential building development constructed within the subject property.

Where the riparian area is maintained dis-contiguous from adjacent forest or shrub vegetation retained or persisting within the subject property (i.e. adjoining APZ maintenance), bushfire vegetation potentially persisting within the riparian area would be considered equivalent to REMNANT (rainforest equivalent). However, for the purposes of this advice and demonstrating APZ compliance, the riparian gully line area is considered equivalent to FOREST.

Similarly, for the purposes of this assessment and the remainder of the subject property, the primary category of bushfire vegetation affecting the subject property is considered equivalent to FOREST. It should be noted that an assessment of APZ compliance for the subject property based on a bushfire vegetation category of forest is reasonably overestimating the extent of APZ area or setback distances required to facilitate PBP acceptable solutions for land subdivision and new residential building development.



The APZ / setback required for the above parameters as determined from PBP (for a Rural Residential Development, Appendix 2 Table A2.4) would be a minimum of 20-60m (10-30m IPA* & 10-30 OPA**) for new buildings from any persisting forest / bushfire vegetation (hazard) within or adjacent to the subject property. The respective IPA/OPA distances include;

- (20m) 10m IPA + 10m OPA from FOREST vegetation upslope or flat (level),
- (25m) 15m IPA + 10m OPA from FOREST vegetation >0-5 degrees down slope,
- (35m) 20m IPA + 15m OPA from FOREST vegetation >5-10 degrees down slope,
- (50m) 30m IPA + 20m OPA from FOREST vegetation >10-15 degrees down slope, &
- (60m) 30m IPA + 30m OPA from FOREST vegetation >15-18 degrees down slope.

* IPA - Inner Protection Area as defined Appendix 2 A2.2(vi) PBP 2006

** OPA – (Allowable) Outer Protection Area as defined Appendix 2 A2.2(vi) PBP 2006

Note: determined slope categories are based on an 'effective slope', being the average slope estimated over 100m between the proposed building siting and potential bushfire vegetation (hazard) likely to ignite and impact upon the proposed building siting.

A detailed analysis of estimated APZ / Setback distances (based on proposed or slightly adjusted sitings denoted by this report) are as denoted on the attached map 'APZ Compliance'.

Alternatively, the APZ area / setback required for REMNANT (for a Rural Residential Development, Appendix 2 Table A2.4) would be a minimum of 10-15m (IPA only) for new buildings from any persisting remnant forest / bushfire vegetation (hazard) within or adjacent to the subject property.

Based on an analysis of slope and vegetation extent likely to persist within and adjacent to the subject property, the proposed building sitings and proposed new allotments size and shape should reasonably facilitate the minimum specified APZ between potentially persisting bushfire hazard and the indicative building sitings. In this respect, the minimum specified APZ area is generally contained within the bounds of the subject property.

Where the APZ technically extends beyond the boundary of the subject property (i.e. proposed lot 4, over Grandfathers Gully Rd), the adjoining land is developed as a formed public roadway and is considered 'compatible' for the purposes of facilitating APZ compliance adjacent to the subject property.

Considering the above, it is reasonable to suggest that PBP 2006 acceptable solutions for APZ compliance can be facilitated in as far as;

- an APZ is provided in accordance with the relevant tables / figures [within PBP 2006], &
- the APZ is wholly within the boundaries of the development site (exceptional circumstances* otherwise permitting).

* As an acceptable exceptional circumstance, PBP states an APZ may be located on adjoining land;

- where it can be demonstrated that there is a strong likelihood of the adjoining land being developed for future residential or other compatible purposes (e.g. staged development or Urban Development Program or Strategies with supporting development control plans), or
- where easements are also required on adjoining land for the purposes of providing access for utilities, right of way, as fire trails, and drainage. These are to be kept clear of free standing vegetation.

Where the individual minimum specified APZ areas partly extend beyond the boundaries of the individual proposed new allotments, it is reasonable to suggest that;

- the proposed subdivision development could incorporate temporary APZ easements during staged periods of residential building development to facilitate specified APZ distances / areas, or
- future building sitings could be designed and located within the proposed new allotments to ensure the entire area of the respective APZ is wholly contained within the bounds of the individual allotment, or
- the adjoining land is either currently or will be a formed public roadway area with little or no available or persisting bushfire vegetation retained within the road reserve area.

Conclusion

Based on the proposed plan of subdivision for the subject property, the proposed rural residential subdivision can easily and reasonably facilitate the minimum APZ areas as specified by PBP. In this regard, at least the minimum specified APZ area can be facilitated around each individual new residential building siting without affecting persisting bushfire vegetation located within or beyond the boundaries of the subject property.

APZ compliance determinations undertaken by this assessment and previous reports are based on the highest category of bushfire vegetation (FOREST), which reasonably overestimates the areas or distances required for PBP compliance.

Considering the completed or final stages of development within the subject property / proposed subdivision, the level and extent of persisting bushfire vegetation would be significantly fragmented and reduced by APZ areas and residential building curtilage and maintained surrounds. In this respect, the estimated area or distance for APZ compliance could be reasonably reduced for new residential building development within the subject property.



