



AUSTRALIAN BUSHFIRE CONSULTING SERVICES



0438 668 203

wayne@australianbushfire.com.au

australianbushfire.com.au



ABN 23 622 676 493
PO Box 212 Berowra Heights 2082

Blue Gum Early Childhood School
114 Maitland Street
Hackett ACT 2602

29th October 2020
Ref 19-290

Attn: Jill McLachlan

**RE: ASSET PROTECTION ZONES
1 ROSEMEAD ROAD HORNSBY NSW
ADDITIONAL INFORMATION**

Dear Jill,

Thank you for providing a copy of Council's comments to the Department of Planning, Industry and Environment regarding this application for my review. I understand that Council have raised concern that there may be significant amounts of vegetation required to be removed to comply with the requirements for an asset protection zone within the subject site.

The Bush Fire Hazard Assessment Report Ref 19-290 R3 dated 7th May 2020 included a recommendation that:

all grounds within the subject property are to be maintained as an Asset Protection Zone / Inner Protection Area as detailed in Appendix 4 of Planning for Bushfire Protection 2019 and the NSW RFS document Standards for Asset Protection Zones.

A summary of the requirements for an asset protection zone is provided within section 4.1.1 of *Planning for Bush Fire Protection 2019* (PBP 2019) however the policy defers to the NSW RFS document *Standards for Asset Protection Zones* "for a complete guide".

By definition an asset protection zone is the area between the bushfire hazard and the built asset. In this situation the subject site is located a significant distance from the bushfire hazard and the separation distance includes additional maintained private property and formed roads. My recommendations should be taken in context with the surrounding area forming part of the APZ and the requirements of NSW RFS document *Standards for Asset Protection Zones*, not just Appendix 4 of PBP 2019. This documents states:

Potential bush fire fuels should be minimised within an APZ. This is so that the vegetation within the planned zone does not provide a path for the transfer of fire to the asset either from the ground level or through the tree canopy.

An APZ, if designed correctly and maintained regularly, will reduce the risk of:

- *direct flame contact on the asset;*
- *damage to the built asset from intense radiant heat; and*
- *ember attack on the asset.*

Isolated areas of vegetation are generally not a bush fire hazard, as they are not large enough to produce fire of an intensity that will threaten dwellings.

This includes:

- *bushland areas of less than one hectare that are isolated from large bushland areas; and*
- *narrow strips of vegetation along road and river corridors.*

Prune or remove trees so that you do not have a continuous tree canopy leading from the hazard to the asset. Separate tree crowns by two to five metres. A canopy should not overhang within two to five metres of a dwelling.

Native trees and shrubs should be retained as clumps or islands and should maintain a covering of no more than 20% of the area.

It can be seen from this document that native trees can be retained “as *clumps or islands*” and that some interlocking canopy is permissible so long as there is no continuous *canopy leading from the hazard to the asset*. As far as tree canopy cover is concerned the 20% covering should be considered in the context of the whole area and canopy breaks of 2-5 metres should be provided between retained clusters of trees between the hazard and the asset, not necessarily between every individual tree.

The intention is to provide fuel reduction within the APZ so that it will not support the progression of a fire front from the bushland interface through to the asset. The APZ also lessen a fires impact on the asset in terms of radiant heat and ember attack.

In this situation the subject site is only marginally affected by the 100 metre buffer zone from a Category 1 Vegetation and the current management of the land between the site and the hazard interface within the surrounding road reserve and neighbouring properties would limit the progression of any bush fire through to the property itself.

The vegetation within the subject site includes mown grass, azaleas, camellias, bromeliads, agapanthus, ferns and other exotic species. A number of species present are generally hard to burn varieties and management of the property will include maintenance of ground fuels. The gardens and lawns can be kept lush and green by school staff. The vegetation is also fragmented by paths and driveways.

I also note the proposed tree removals contained within the Arboricultural Impact Assessment Report by Earthscape Horticultural Services April 2020 which includes the removal of 40 trees as follows:

Low and very low value trees:

T16 (Sweet Pittosporum), T19 (Juniper), T29 (Peppercorn), T37 (Citrus), T65 (Macadamia), T68, T69, T70 & T76 (Blackbutt), T71 & T81 (Silky Oak), T75 (Green Wattle), T77 (Umbrella Tree), T78, T95 & T96 (Black-She-oak), T82 (Lillypilly), T89 & T110 (Illawarra Flame) T94 (Jacaranda).

Poor heath and low retention value trees

T38 (Sweet Pittosporum), T41 (Yellow Bells), T53 (Tuckeroo)

Moderate value trees:

T21 (Sweet Pittosporum), T27 (Bangalow Palm), T28 (Lasiandra), T64, T66, T67 & T73 (Blackbutt), T72 (Brown Pine), T74 & T86 (Blueberry Ash), T79 (Kurrajong), T80 (Illawarra Flame), T83 (Cabbage Tree Palm), T88 (Sassafras) T90 (Chinese Windmill Palm).

High retention value.

*T111 (Cabbage Tree Palm)
T112 (Giant White Bird of Paradise).*

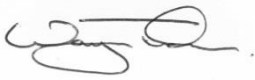
Of special note is the removal of tree 19 Juniper tree. The proximity of this tree to the building is such that it should be removed or otherwise pruned so that it does not touch or overhang the building.

In this case the asset protection zones are generally existing and, in my opinion, meet the intent and performance requirement of *Planning for Bush Fire Protection 2019*. Simple grounds maintenance removing fallen leaf litter, tidy up gardens and ongoing management is required. Other work required is pruning of limbs around the onsite power supply so that no part of a tree is closer to a power line than the distance set out in *ISSC3 Guideline for Managing Vegetation Near Power Lines* (1.5 metres in this instance).

I am therefore satisfied that in the context of the site specific circumstances the landscape and tree retention, including the additional replacement planting of three (3) trees, satisfies the requirements of the NSW RFS document *Standards for Asset Protection Zones* and fulfills the intention of the recommendations within my report.

Should you have any further questions please do not hesitate to contact me.

Australian Bushfire Consulting Services



Wayne Tucker

Managing Director
G. D. Design in Bushfire Prone Areas.
Certificate IV Fire Technology
Ass Dip Applied Science
FPA Australia BPAD Level 3 Accredited Practitioner
BPAD Accreditation No. BPAD9399