



Building Code & Bushfire Hazard Solutions

(Pty. Limited) ABN 19 057 337 774
PO Box 124, Berowra NSW 2081
Telephone: (02) 9457 6530 Facsimile: (02) 9457 6532
www.bushfirehazardsolutions.com.au



Watershed Design
Level 1, 167 Pittwater Road,
MANLY NSW 2095

10th September 2019
Our Ref. 160165B

Attn: Mark Korgul

**Re: PROPOSED CHANGE OF USE FROM STUDIO TO SECONDARY DWELLING
13 OGILVY ROAD, CLONTARF NSW
BUSHFIRE ASSESSMENT STATEMENT**

Dear Mark,

We thank you for the opportunity of undertaking this assessment for you.

The development proposal relates to the change of use from a studio to a secondary dwelling within an existing private residential allotment located at 13 Ogilvy Road, Clontarf (Lot 16 DP 260338). The subject property has street frontage to Ogilvy Road to the north and abuts private residential allotments to the east and west and Castle Rock Reserve to the south.

The subject building was recently rebuilt (DA 277/2015) to comply with section 6 (BAL 19) of Australian Standard 3959 'Construction of buildings in bushfire-prone areas' 2009 being the relevant Bushfire Attack Level.

Properties considered to be affected by possible bushfire impact are determined from local Bushfire Prone Land Map's as prepared by Council and or the Rural Fire Service. All property development within affected areas is subject to the conditions detailed in the document 'Planning for Bush Fire Protection - 2006' (PBP).

Northern Beaches Council's Bushfire Prone Land Map indicates the subject property is within the 100 metre buffer zone from designated Category 1 Vegetation. The application of Planning for Bush Fire Protection - 2006 (PBP) is applicable in this instance.

The vegetation identified as being the potential bushfire hazard to the subject property is located within unformed road reserves and Sydney Harbour National Park to the west and southeast of the subject building.

The purpose of this bushfire assessment is to provide the owners and Council with an independent bushfire hazard determination together with appropriate recommendations for both building construction and bushfire mitigation measures considered necessary having regard to construction within a designated 'bushfire prone' area.

The scope of this statement is limited to providing a bushfire assessment and recommendations for the subject building within the subject property and its proposed use. Where reference has been made to the surrounding lands, this statement does not purport to directly assess those lands; rather it may discuss bushfire impact and/or progression through those lands and possible bushfire impact to the subject property.

The proposed development relates to the change of use from a studio to a secondary dwelling within an existing private residential allotment (Section 4.14 application). To accord with PBP the development is classified as infill development.

As the proposal seeks approval for a secondary dwelling in accordance with Planning for Bush Fire Protection the application must be assessed as if submitted under section 100b of the *Rural Fires Act 1997*.

Vegetation Identification:

The predominate vegetation found within the subject property and the neighbouring private residential allotments was found to consist of built upon areas surrounded by landscaped gardens and mown lawns. The vegetation identified as being the hazard is within Castle Rock Reserve to the west and southeast of the subject dwelling.

The vegetation to the west was found to comprise of a small distinct pocket of Coastal Escarpment Littoral Rainforest within a gully, and further west was an area of low shrubs and bushes <5 metres in height with the occasional emergent banksia and *no* over storey of eucalypts. Although the area beyond the Rainforest is mapped as Coastal Sandstone Foreshores Forest our site assessment concluded that a shrub hazard determination is more appropriate for this area (regardless this would not alter the BAL determination of this report).

The area to the east was found to consist of gum trees to 10 – 15 metres on height with an understorey of shrubs grass and herbs. The canopy cover was approximately 25 – 35 % which is marginal between a forest and woodland hazard. The area is listed as containing Coastal Sandstone Foreshores Forest which can form either a Forest or Woodland hazard. For the purpose of assessment under PBP 2006 a conservative assessment of Forest has been concluded. There is a narrow riparian corridor between the site and the forest to the east.

Due south and southwest of the subject site the land is well maintained lawns and native gardens. Beyond the managed low threat vegetation is a large rock escarpment extending along the foreshore of Middle Harbour. An occasional fig tree (hard to burn species) grows out of the rock crevices in this area. This area does not present as a bushfire hazard and has been assessed as “low threat” vegetation.

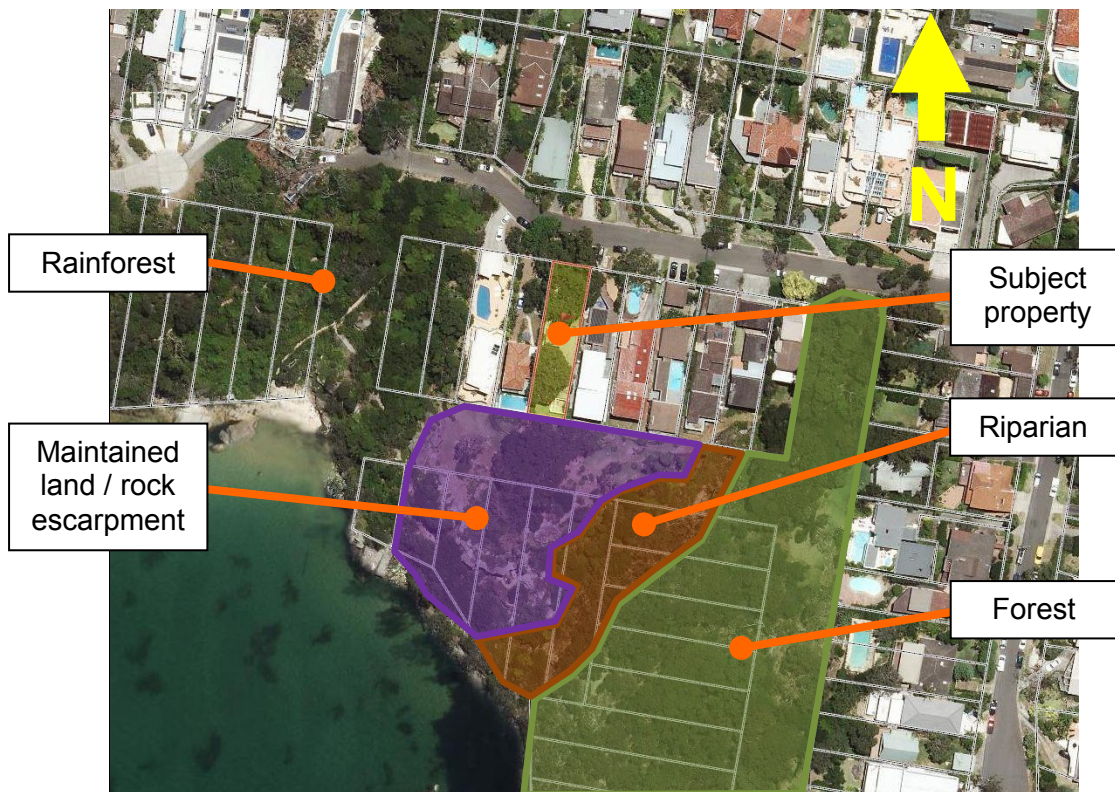


Image 03: Aerial view of the subject area Land and Property Management Authority

Slope Analysis:

The slope that would most significantly affect bushfire behaviour must be assessed for at least 100 metres from the subject building. The most significant bushfire impact from the hazard to the west and southeast is expected to be a bushfire travelling down slope toward the subject property.

The slope that would **most significantly** influence bushfire impact was determined onsite using an inclinometer to be:

- 0 degrees and upslope within the hazard to the west and southeast



Image 04: Extract from ELVIS - Geoscience Australia

Asset Protection Zones:

The subject property was found to have maintained lawns and gardens around the existing dwelling.

The subject building was found to be located ≥ 22 metres from the rainforest to the west, ≥ 80 metres from the scrub further west and ≥ 45 metres from the forest to the south. The separation from the hazard interface includes maintained land within the subject property and the maintained buffer (lawns and gardens) adjacent to the subject site.

All grounds within the subject property not built upon will continue to be maintained as an Asset Protection Zone as detailed in the NSW Rural Fire Service’s document ‘Standards for Asset Protection Zones’. This will allow for gardens (including native trees and shrubs) in the APZ managed as clumps or islands, covering no more than 20% of the area.

Fire Fighting Water Supply:

The most distant external point of the subject building is within 70 metres of a public road supporting a hydrant network and therefore a Static Water Supply is not required.

The existing water supply is considered adequate for the replenishment of attending fire services.

Property Access:

The subject property has street frontage to Ogilvy Road to the north. Persons seeking to egress the subject building are able to do so via the existing access drive and road infrastructure.

The most distant external point of the subject building is within 70 metres of a public road supporting a hydrant network. Fire appliances have vehicle access to the subject site and pedestrian access to the hazard via the subject site. The existing access is considered satisfactory and will not be altered as part of this application.

Summary:

	West Transect 1	West Transect 2	Southeast Transect 3
Vegetation Structure	Scrub	Rainforest	Forest
Slope	0 degrees and upslope	0 degrees and upslope	0 degrees and upslope
Asset Protection Zone	≥ 80 metres	≥ 22 metres	≥ 45 metres
Significant Environmental Features	Neighbouring private residential allotment / Rainforest Gully	Neighbouring private residential allotment	22 metre managed land / rock escarpment inside Reserve
Bushfire Attack Level	BAL 12.5	BAL 19	BAL 19

The objectives of Planning for Bush Fire Protection – 2006 are for the protection of life including fire fighters. Provided these objectives can be met the construction of buildings is feasible and both the Rural Fire Service and Council should be in a position to consider such applications.

The highest Bushfire Attack Level to the subject building was determined from Table 2.4.2 of AS3959 - 2009 to be 'BAL 19'.

The subject building was recently rebuilt (DA 277/2015) to comply with section 6 (BAL 19) of Australian Standard 3959 'Construction of buildings in bushfire-prone areas' 2009 being the relevant Bushfire Attack Level.

Recommendations

Asset Protection Zones

1. That all grounds within the subject property continue to be maintained as an Asset Protection Zone as detailed in the NSW Rural Fire Service's document 'Standards for Asset Protection Zones' and Appendix 2 of Planning for Bushfire Protection 2006.

Conclusion:

Given that the property is deemed bushfire prone under Northern Beaches Council's Bush Fire Prone Land Map any proposed development including the building would need to meet the requirements or the intent of *Planning for Bush Fire Protection – 2006* and of the construction requirements of *Australian Standard 3959 'Construction of buildings in bushfire-prone areas' – 2009*. The determination of any bushfire hazard must be made on a site-specific basis that includes an assessment of the local bushland area and its possible impact to the subject property.

The vegetation posing the hazard to the west was determined to be rainforest, with an area of scrub further west and to the south forest beyond managed land. All hazards are on level ground or an upslope.

The existing Asset Protection Zone (APZ) was measured to be >22 metres from the rainforest to the west, >80 metres from the scrub further west and >45 metres from the forest to the southeast.

The highest Bushfire Attack Level to the proposed works was determined from Table 2.4.2 of AS3959 - 2009 to be 'BAL 19'. The subject building was recently rebuilt (DA 277/2015) to comply with section 6 (BAL 19) of Australian Standard 3959 'Construction of buildings in bushfire-prone areas' 2009 being the relevant Bushfire Attack Level.

The existing access provisions and water supply are considered adequate for this development.

In accordance with the bushfire safety measures contained in this report, and consideration of the site specific bushfire risk assessment and existing approved building footprints it is my opinion that the recommendations made herein will provide a reasonable level of bushfire protection to the subject development.

I am therefore in support of the development application.

Prepared by
Building Code & Bushfire Hazard Solutions P/L



Andrew Muirhead

Diploma of Engineering

Reviewed and endorsed by
Building Code & Bushfire Hazard Solutions P/L



Stuart McMonnies

Manager Bushfire Section
G. D. Design in Bushfire Prone Areas.
Certificate IV Fire Technology
Fire Protection Association of Australia BPAD – L3 Accredited Practitioner
Certification number – BPAD 9400



Quote from Planning for Bush Fire Protection 2006, 'Any representation, statement opinion, or advice expressed or implied in this publication is made in good faith on the basis that the State of New South Wales, the NSW Rural Fire Service, its agents and employees are not liable (whether by reason of negligence, lack of care or otherwise) to any person for any damage or loss whatsoever which has occurred or may occur in relation to that person taking or not taking (as the case may be) action in respect of any representation, statement or advice referred to above.'

Similarly the interpretations and opinions provided by Building Code and Bushfire Hazard Solutions in regard to bushfire design, protection and mitigation are also given in the same good faith.



Building Code & Bushfire Hazard Solutions

(Pty. Limited) ABN 19 057 337 774
PO Box 124, Berowra NSW 2081
Telephone: (02) 9457 6530 Facsimile: (02) 9457 6532
www.bushfirehazardsolutions.com.au



BUSHFIRE RISK ASSESSMENT CERTIFICATE UNDER PART 4 DIVISION 4.3 SECTION 4.14 OF THE EP&A ACT 1979 NO 203

PROPERTY ADDRESS:	13 Ogilvy Road, Clontarf
DESCRIPTION OF PROPOSAL:	Change of use from a studio to secondary dwelling
PLAN REFERENCE: (relied upon in report preparation)	Site Plans by Watershed Design, Job No 13011, Revision C, Date 25.03.19
BAL RATING:	BAL 19 <small>(If the BAL rating is FZ the application is to be referred to NSW RFS for assessment)</small>
DOES THE PROPOSAL RELY ON ALTERNATE SOLUTIONS:	YES <input type="radio"/> NO <input checked="" type="radio"/> <small>(Circle the relevant response)</small> <small>(If YES the application is to be referred to NSW RFS for assessment)</small>
BUSHFIRE ASSESSMENT REPORT REFERENCE:	160165B
REPORT DATE:	10 th September 2019
CERTIFICATION NO/ACCREDITED SCHEME	BPAD9400

I Stuart McMonnies of Building Code and Bushfire Hazard Solutions Pty Ltd hereby certify, in accordance with Part 4 Division 4.3 Section 4.14 of the *Environmental Planning and Assessment Act 1979 No 203*:

1. That I am a person recognised by the *NSW Rural Fire Service* as a qualified consultant in bushfire risk assessment; and
2. That subject to the recommendations contained in the Bushfire Risk Assessment Report the proposed development conforms specifications and requirements of the documents entitled *Planning for Bush Fire Protection* prepared by the *NSW Rural Fire Service* in co-operation with the Department of Planning and any other documents as prescribed by Part 4 Division 4.3 Section 4.14 of the *Environmental Planning and Assessment Act 1979 No 203*.

I am aware that the Bushfire Assessment Report, prepared for the above mentioned site is to be submitted in support of a development application for this site and will be relied upon by Council as the basis for ensuring that the bushfire risk management aspects of the proposed development have been addressed in accordance with *Planning for Bushfire Protection 2006*.

Signature:  Date: 10th September 2019

