



# Building Code & Bushfire Hazard Solutions

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Westley Owers  
Email: [info@hermosadesigns.com.au](mailto:info@hermosadesigns.com.au)

28<sup>th</sup> June 2024  
Our Ref. 241120

**Re: PROPOSED MINOR ALTERATIONS & ADDITIONS  
LOT 2A DP 17157 / 17 DALWOOD AVENUE, SEAFORTH NSW  
BUSHFIRE ASSESSMENT STATEMENT**

Dear Westley,

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

The development proposal relates to the minor alterations and additions to an existing dwelling within an existing residential allotment known as 17 Dalwood Avenue, Seaforth (Lot 2A DP 17157). The subject property has street frontage to Dalwood Avenue to the east, abuts a private residential allotment to the south and Dalwood Community Health Services to the north and west.

The vegetation identified as being the hazard is within Dalwood Community Health Services grounds and neighbouring allotments to the west of the subject dwelling.

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 relevant specifications and requirements detailed in 'Planning for Bush Fire Protection - 2019' (PBP).

Northern Beaches Council's Bushfire Prone Land Map indicates that the subject property contains the Vegetation Buffer. The application of Planning for Bush Fire Protection - 2019 (PBP) is applicable in this instance.

The purpose of this bushfire assessment is to provide the owners and Council with an independent bushfire 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 proposed minor alterations and additions within the subject site. 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 alterations and additions to an existing dwelling within an existing residential allotment (s4.14 application). To accord with PBP the development is classified as infill development and Chapters 7 & 8 applied.



Image 01: Extract from Northern Beaches Council's Bushfire Prone Land Map



Image 02: Aerial view of the subject property C/- Nearmap – March 2024



A representative of Building Code & Bushfire Hazard Solutions completed a site inspection of the subject site and surrounding area.

In addition, the following external data sources have been relied upon for this assessment:

- Aerial imagery of the subject area (NSW Spatial Services & Nearmap).
- 1 metre contour mapping of the subject area (Elevation and Depth Foundation Spatial Data – Geoscience Australia)
- NSW Planning Portal Spatial Viewer
- Vegetation mapping (NSW State Vegetation Type Map)
- NSW Bush Fire Prone Land (NSW Rural Fire Service)
- Proposed Plans by R&R Design, Project No. 240326 DA, Dated 8/04/2024

## **Vegetation Identification:**

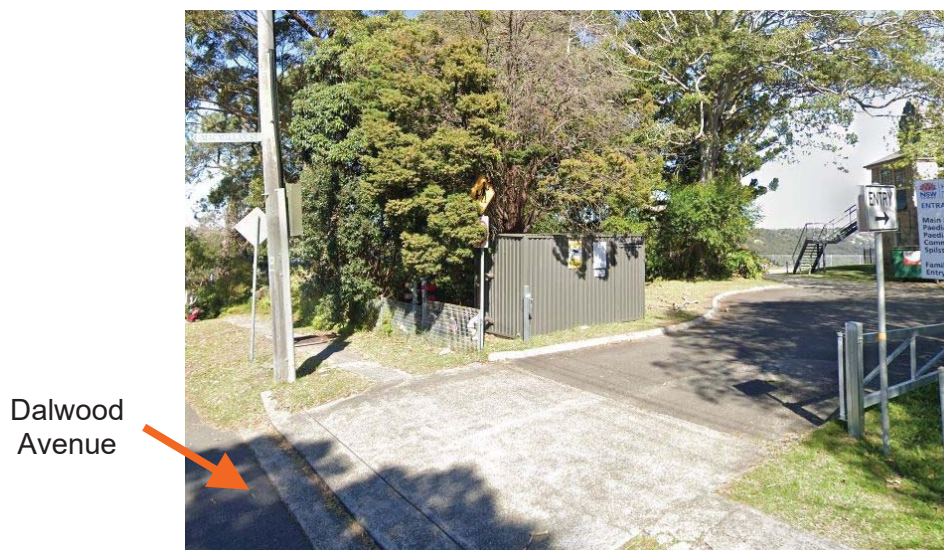
In accordance with Appendix 1 'Site Assessment Methodology' of PBP an assessment of all vegetation formations within 140 metres of the subject site for each aspect as per Keith (2004) has been undertaken.

The predominant vegetation within the subject property and within the neighbouring private allotments was found to consist of landscaped gardens, mown lawns and urban landscaping.

The vegetation identified as being the hazard is within Dalwood Community Health Services grounds and neighbouring allotments to the west of the subject dwelling. The vegetation posing a hazard to the west was found to consist of weeds and exotics. NSW Vegetation Mapping identifies the vegetation as Sydney Coastal Sandstone Foreshores Forest (PCT: 3594).

A small area of vegetation was identified to the north, this vegetation was found to be less than 0.25Ha in size (1000m<sup>2</sup>) and was found to have areas of mowing under the canopy and is consistent with a privacy screen. Also, this vegetation is not mapped as a hazard on Councils map. While strictly not complying with low threat vegetation the attributes of this area of vegetation are consistent with this classification. In accordance with A1.11.1 of PBP it can be assessed as a Remnant hazard.

For the purpose of assessment under 'Planning for Bush Fire Protection' and in accordance with Section A1.9 Exotic Vegetation the vegetation posing a hazard to the west has been determined to be Woodland.



Photograph 01: View from Dalwood Avenue toward the vegetation to the north of the subject property, showing the mown lawns underneath.



Figure 03: Extract from Vegetation Mapping NSW, showing the vegetation types.



## Slope Analysis:

The slope of the land under the classified vegetation has a direct influence on the forward rate of spread, fire intensity and radiant heat exposure. The effective slope is considered to be the slope under the classified vegetation which will most significantly influence bushfire behaviour toward the development site.

In accordance with A1.4 'Determine slope' of PBP the slope assessment is to be derived from the most detailed contour data available and site observations.

The slope that would most significantly influence bushfire behaviour was determined from topographic imagery and site observations to be:

- 0 degrees and up slope within the hazard to the north
- 10 - 15 degrees down slope within the hazard to the west



Figure 04: Extract from ELVIS – Geoscience Australia (1 metre contours)

## Asset Protection Zones:

The vegetation identified as being the hazard is within Dalwood Community Health Services grounds and neighbouring allotments to the west of the subject dwelling.

The Asset Protection Zones (APZ) was measured to be less than 1 metre to the north and >18 metres to the west. The APZ consists of maintained grounds within the subject property and neighbouring allotments.

## Fire Fighting Water Supply:

Hydrants are available throughout Dalwood Avenue and surrounding roads for the replenishment of fire service vehicles. The most distant external point of the subject dwelling is less than 70 metres of a hydrant and therefore a Static Water Supply is not required. Regardless the existing pool provides an additional supply.

The existing water supply is considered adequate for this development.

## Property Access:

The subject property has street access to Dalwood Avenue to the east. Persons seeking to egress from the subject property are able to do so via the existing access drive and public roads. The most distant external point of the proposed footprint is less than 70 metres from a public road supporting the operational use of fire fighting vehicles and therefore the Access requirements detailed in Table 7.4a of PBP 2019 are not applicable.

Access to the hazard is available via the neighbouring allotments and the grounds of Dalwood Community health Services for hazard reduction for fire suppression activities. The existing access is not being altered and is considered adequate for this development.

## Summary:

	North	West
<b>Vegetation Structure</b>	Remnant	Woodland A1.9 Exotic Vegetation
<b>Slope</b>	0 degrees and up	10 - 15 degrees down
<b>Asset Protection Zone</b>	<1 metres	>18 metres
<b>Significant landscape features</b>	Maintained grounds	Maintained grounds
<b>Threatened species</b>	APZ Existing	APZ Existing
<b>Aboriginal Relics</b>	APZ Existing	APZ Existing
<b>Bushfire Attack Level</b>	BAL FZ	BAL 40
<b>Required Construction Level</b>	BAL 40 With consultation from the RFS	BAL 40

The highest Bushfire Attack Level to the proposed works was determined from Table A1.12.5 of PBP to be 'BAL FZ'. Owing to the minor nature of the works being one window, it is recommended that the works will be constructed to BAL 40, which is consistent with the original DA application for the original dwelling DA 262/2014, 14/08/2015.

## Recommendations

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### Asset Protection Zones

1. That all existing maintained grounds within the subject property shall continue to be maintained as an Inner Protection Area (IPA) as detailed in the NSW Rural Fire Service's document 'Standards for Asset Protection Zones' and Section 4 of Planning for Bush Fire Protection 2019.

Note: At the time of our inspection there was no vegetation management required to implement the above APZ.

### Construction

2. That the alterations and additions shall comply with Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas" Section 3 and 8 & section 7.5 of Planning for Bush Fire Protection 2019.

## Conclusion:

Given that the property is deemed bushfire prone under Northern Beaches Council's Bushfire Prone Land Map any development would need to meet the requirements of 'Planning for Bush Fire Protection' 2019 and of the construction requirements of Australian Standard 3959 'Construction of buildings in bushfire-prone areas' 2018. 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 subject property is a residential allotment within an area of similar properties. The vegetation identified as being the hazard is within the grounds of Dalwood Community Health Services to the west of the subject dwelling. The vegetation posing a hazard was determined to be Exotic Vegetation – Woodland to the west and Remnant to the north.

The Asset Protection Zones (APZs) were measured to be <1 metre to the north and >18 metres to the west. The APZ consists of maintained grounds within the subject property and neighbouring allotments.

The highest Bushfire Attack Level to the proposed works was determined from Table A1.12.5 of PBP to be 'BAL FZ'. Owing to the minor nature of the works being one window, it is recommended that the works will be constructed to BAL 40, which is consistent with the original DA application for the original dwelling DA 262/2014, 14/08/2015.

The proposed works are required to comply with section 3 and section 8 (BAL 40) under AS 3959 – 2018 and the additional construction requirements under section 7.5 of PBP or the relevant BAL-40 requirements of the NASH Standard - *Steel Framed Construction in Bushfire Areas (incorporating amendment A - 2015)*.

Hydrants are available throughout Dalwood Avenue and surrounding streets for the replenishment of attending fire services. The existing access and water provisions are considered satisfactory for attending fire services.

In accordance with the bushfire safety measures contained in this report, and consideration of the site specific bushfire risk assessment 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.

Should you have any questions please do not hesitate in contacting me.

Prepared by  
Building Code & Bushfire Hazard Solutions



**Duncan Armour**  
Bushfire Consultant

Reviewed and endorsed by  
Building Code & Bushfire Hazard Solutions



**Andrew Muirhead**

Bushfire Consultant  
Graduate Certificate in Bushfire Protection  
Diploma of Engineering.  
FPA Australia BPAD Level 2 Accredited Practitioner  
BPAD Accreditation No. BPAD46966





Quote from Planning for Bush Fire Protection 2019, 'While the material within this publication is current at the time of writing changes in circumstances after the time of publication may impact on the accuracy of the material. Individuals are responsible for ensuring they have the most current version of this publication.'

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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.

# Bush Fire Certificate

Certificate issued unders4.14(1)(b) of the *Environmental Planning & Assessment Act, 1979* and *Planning for Bush Fire Protection 2019*

This Certificate has been issued by a person accredited by Fire Protection Association Australia (FPA Australia) under the Bush Fire Planning and Design (BPAD) Accreditation Scheme and who is recognised by the NSW Rural Fire Service as a qualified consultant in bushfire risk assessment within the meaning of section 4.14(1)(b) of the *Environmental Planning and Assessment Act 1979* (NSW).



## Property Details and Description of Works

Address Details	Unit no	Street no	Street name		Lot/Sec/DP
		17	Dalwood Avenue		2A/-/17157
Local Government Area BCA class of the building Description of the proposal Development Application Reference	Suburb			State	Postcode
	Seaforth			NSW	2092
	Northern Beaches				
	1A				
	Minor Alterations & additions				

## Bush Fire Assessment Report

A detailed Bush Fire Assessment Report is attached, which includes the relevant submission requirements set out in <i>Appendix 2</i> of <i>Planning for Bush Fire Protection 2019</i> together with recommendations as to how the relevant specifications and requirements are to be achieved.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Report Reference and date	
Bushfire Assessment Report 241120	28th June 2024

## BPAD Certification

<b>Name</b> Andrew Muirhead	I hereby certify, in accordance with Section 4.14(1)(b) of the <i>Environmental Planning and Assessment Act 1979</i> that: <ul style="list-style-type: none"> <li>I am a person recognised by the NSW Rural Fire Service as a qualified consultant in bush fire risk assessment; and</li> <li>the development conforms to the relevant specifications and requirements of <i>Planning for Bush Fire Protection 2019</i> in accordance with section 4.14(1)(b) of the <i>Environmental Planning and Assessment Act 1979</i> (NSW).</li> </ul>	
<b>Company Details &amp; ABN</b> Bushfire Hazard Solutions  19 057 337 774		
<b>BPAD Accreditation Number</b> 46966 	<b>Signature</b> 	<b>Date</b> 28th June 2024