

Bushfire Hazard Assessment Report 31 Ralston Rd, Palm Beach. NSW 2108
11th March 2025

Steve Brooks Bushfire Consultant

Bushfire Hazard Assessment Report

**Demolition of existing dwelling and the construction of a new dwelling
31 Ralston Rd, Palm Beach. NSW 2108**



11th March 2025

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Steve Brooks Bushfire Consultant

Bushfire Risk Assessment Certificate

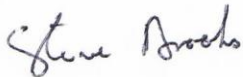
This form is to be completed by a recognised consultant in Bushfire Risk Assessment in accordance with Section 4.14 of the Environmental Planning and Assessment Act 1979

<i>Property Address</i>	31 Ralston Rd, Palm Beach. NSW 2108
<i>Description of the Proposal</i>	Demolition of existing dwelling and the construction of a new dwelling
<i>Plan Reference</i>	11 th March 2025 - 1
<i>BAL Rating</i>	BAL-19
<i>Does Proposal rely on Alternate Solutions</i>	No
<i>Is Referral to NSW RFS Required</i>	No

I, Steve Brooks have carried out a Bushfire Risk Assessment on the above-mentioned property and the proposed development. A detailed Bushfire Assessment Report is attached which includes the requirements set out in Appendix 2 of Planning for Bushfire Protection 2019.

I hereby certify that in accordance with Section 4.14 of the Environmental Planning and Assessment Act 1979, I am a person recognised by the NSW Rural Fire Service as a qualified consultant in bushfire risk management. The bushfire risk assessment report for the development conforms to the relevant specifications and requirements of Planning for Bushfire Protection 2019 (NSWRFS).

I acknowledge that the Bushfire Assessment Report prepared for the above-mentioned property will be submitted and relied upon by Council in support of the proposed Development Application as the basis for ensuring that the bushfire requirement aspects of the proposed development have been met in accordance with Planning for Bushfire Protection 2019 (NSWRFS).



BPAD - Certification No. 40765
Graduate Diploma Bushfire Planning and Design (UWS)
Graduate Certificate in Fire Investigation (CSU)



Terms and Conditions

This Bushfire Hazard Assessment Report may only be copied, distributed or forwarded to other parties in its original format with the permission of Steve Brooks. This document cannot be altered in any way unless given permission by myself, Steve Brooks.

Disclaimer

Quote from Standards Australia *"It should be borne in mind that measures contained in this Standard cannot guarantee that a building will survive a bushfire event on every occasion. This is substantially due to the degree of vegetation management, the unpredictable nature of behaviour of fire, and extreme weather conditions"*

This report has been prepared with all honesty and the opinions contained in this report are provided in good faith and all comments and opinions are not misleading.

AS 3959-2018 is designed to improve the performance of buildings in designated Bushfire Prone Areas but there is no guarantee of a structure surviving a bushfire event due to the sometimes erratic and unpredictable behaviour of bushfires.

Steve Brooks is therefore not liable to any person or company for any damage or loss incurred in a bushfire event due to a person or company taking actions in respect to advice or statements contained within this Bushfire Hazard Assessment Report.

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Document Control

Document Name	Project Ref	Date	Author	Status
31 Ralston Rd	1	11/03/2025	S.Brooks	Complete

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List of Abbreviations

APZ	Asset Protection Zone
AS3959	Australian Standard 3959-2018
BAL	Bushfire Attack Level
BCA	Building Code of Australia
EP&A Act	Environmental Planning and Assessment Act 1979
FDI	Fire Danger Index
FRNSW	Fire & Rescue NSW
IPA	Inner Protection Area
OPA	Outer Protection Area
PBP	Planning for Bushfire Protection – 2019
RF Act	Rural Fires Act – 1997
RFS	NSW Rural Fire Service
SEPP	State Environmental Planning Policy
SFPP	Special Fire Protection Purpose
SWS	Static Water Supply

Executive Summary

I have been engaged to undertake a Bushfire Hazard Assessment Report for the subject Lot located at 31 Ralston Rd, Palm Beach. NSW 2108, on behalf of the proponents, for the proposed demolition of the existing dwelling and the construction of a new dwelling.

The proposed dwelling building footprint will be shifted approx. 1m to the North of the existing building footprint to ensure the setback complies with Northern Beaches Council requirements.

The proposal is Residential Infill Development and has been identified as being Bushfire Prone Land and is therefore subject to consideration under Section 4.14 of the Environmental Planning and Assessment Act 1979 (EP&A Act) and Planning for Bushfire Protection 2019. The subject Lot is located within the Northern Beaches Council LGA.

The subject Lot has been identified to be located within a Category 1 Bushfire Hazard Vegetation Buffer Zone as per the Northern Beaches Council LGA Bushfire Prone Land Map.

The nearest Classified Bushfire Hazard Vegetation is Category 1 Bushfire Hazard Vegetation - Forest Classified Vegetation located 78m in the Southern aspect from the proposed dwelling with an effective slope of 4° Downslope.

In the Western aspect is Category 1 Bushfire Hazard Vegetation – Forest Classified Vegetation located 80m in the Western aspect of the proposed dwelling, across Ralston Rd and McKay Rd. The degree of effective slope under the Forest Classified Vegetation is 16° Downslope.

The Forest Classified Vegetation is classed as *Sydney Coastal Enriched Sandstone Forest* - *Sydney Coastal Dry Sclerophyll Forests* by the NSW Government Trees Near Me application and, is located within McKay Reserve.

In the Northern and Eastern aspects of the subject Lot, and proposed development, there is no category of hazardous bushfire vegetation within 100m in these aspects as identified on the Northern Beaches Council LGA Bushfire Prone Land Map.

The proposed development has been found to be in the BAL – 19 range as per Table A1.12.5. of PBP 2019 and will therefore be required to be constructed to the standards outlined in Sections 3, 5 & 6 of AS3959-2018. It will also need to meet the Performance Criteria of Table of Table 7.4a Planning for Bushfire Protection 2019.

The proposed dwelling will also need to comply with the construction requirements outlined in Section 7.5 – Additional Construction Requirements of PBP 2019 therefore, any decking, stairs, landings, ramps or verandas are rated BAL-29 and are to be constructed to meet the construction requirements outlined in Section 7 of AS3959-2018.

I believe this development proposal can comply with the requirements of both, AS 3959-2018 Construction of Buildings in Bushfire Prone Areas and Planning for Bushfire Protection 2019.

Aspect	Northern	Southern	Eastern	Western
Vegetation	Maintained Land	Forest	Maintained Land	Forest
Slope	N/A	4° Downslope	N/A	16° Downslope
Total APZ	>100m	78m	>100m	80m
BAL Rating	BAL-12.5	BAL-19	BAL-12.5	BAL-19

Table 1 – Final BAL Ratings for the proposed development.



Image 1 – Indicates and aerial image of the subject Lot and surrounds (Nearmap 2025)

1 Introduction

I have been engaged to undertake a Bushfire Hazard Assessment Report for the subject Lot located at 31 Ralston Rd, Palm Beach. NSW 2108, on behalf of the proponents, for a Development Application to Northern Beaches Council for the proposed demolition of the existing dwelling and the construction of a replacement dwelling as required by Section 4.14 of the Environmental Planning and Assessment Act 1979.

The subject Lot has been identified as being Bushfire Prone Land as per the Northern Beaches Council LGA Bushfire Prone Land Map and therefore, compliance with Bushfire Legislation is required. The subject Lot is located within a Category 1 Bushfire Hazard Vegetation Buffer Zone.

The development is Residential Infill Development as defined by Planning for Bushfire Protection 2019 and this report has been prepared in accordance with the submission requirements of Section 4.14 of the Environmental Planning and Assessment Act 1979 and Appendix 2 of Planning for Bushfire Protection 2019.

Property Details

Council:	Northern Beaches
Council Reference	N/A
Address:	31 Ralston Rd, Palm Beach. NSW 2108
	Lot 15 Section 4 DP 14048
Site Area:	836 sqm approx.
Zoning	C4 – Environmental Living

1.1 Purpose of this Report

The purpose of this Bushfire Hazard Assessment Report is to provide the owners, consent authority and the NSW Rural Fire Service with an independent Bushfire Hazard Assessment for the subject Lot. The report makes recommendations and details how the development proposal complies/not complies with the Performance Criteria and Acceptable Solutions of Chapter 7 in Planning for Bushfire Protection 2019.

1.2 Scope of the Report

This Bushfire Hazard Assessment Report and its' recommendations are limited to the subject Lot and the proposed development only and not neighbouring properties or lands. This report considers the current bushfire legislation, planning controls and standards for building in bushfire prone land areas.

This report is based on site plans, a site visit and relevant information from the local council and government agencies.

1.3 Referenced Documents

This Bushfire Hazard Assessment Report has been prepared with consideration given to the relevant legislation and regulations pertaining to developments in bushfire prone land areas including the *Environmental Planning and Assessment Act 1979*, the Building Code of Australia, *Planning for Bushfire Protection 2019* and AS 3959-2018 *Construction of building in bushfire prone areas*.

1.4 Methodology of the Report

The methodology for the Bushfire Hazard Assessment adheres to the method described in Appendix 2 of Planning for Bushfire Protection 2019.

- Determine all vegetation formations within 140m of the proposal.
- Determine the distance of each vegetation formation identified and the building.
- Determine the effective slope for each vegetation group.
- Determine the relevant FDI.
- Match the relevant FDI, appropriate vegetation, distance, and effective slope classes to determine the category of bushfire attack applicable to the site.
- Determine the appropriate level of construction found in Table A1.12.5 of PBP 2019.

1.5 The Proposed Development

The proponents seek consent approval from Northern Beaches Council for the proposed demolition of the existing dwelling and the construction of a replacement dwelling on the subject Lot located at 31 Ralston Rd, Palm Beach. NSW 2108.

The proposed dwelling building footprint will be shifted approx. 1m to the North of the existing building footprint to ensure the setback complies with Northern Beaches Council requirements.

The Northern Beaches Council LGA Bushfire Prone Land Map indicates that the proposed development is located within a Category 1 Bushfire Hazard Vegetation Buffer Zone.

The hazardous vegetation that is a potential bushfire risk is Forest Classified Vegetation located 78m in the Southern aspect and 80m in the Western aspect of the proposed dwelling.

In the Northern and Eastern aspects of the subject Lot there is no category of hazardous bushfire vegetation within 100m of the existing dwelling and proposed development.

The subject Lot is zoned C4 – Environmental Living and the proposed development is understood to comply with the requirements of the Northern Beaches Council LEP and DCP. The proposal constitutes “Residential Infill Development” as defined and as such must meet the Performance Requirements and Acceptable Solutions outlined in Chapter 7 of *Planning for Bushfire Protection* 2019.

Type of Proposal PBP 2019

☒
☐

New Building
Rural Residential

☒
☐

Urban
Alterations and
Additions

☐
☐

Dual Occupancy
Isolated Rural



Image 2 – Indicates and aerial image of the subject Lot and existing dwelling (Nearmap 2025)

1.6 Bushfire Prone Land Map

The land has been identified on the Northern Beaches Council LGA Bushfire Prone Land Map which covers the entire site.

A copy of the bushfire prone land status is shown below.



Figure 1 – 31 Ralston Rd, Palm Beach. NSW 2108 Bushfire Prone Land Map (NSW Government 2025). It should be noted that the Bushfire Prone Land Map above indicates that the site is located within a Category 1 Bushfire Hazard Vegetation Buffer Zone.

Hazard

Bushfire Prone Land (Non-EPI)

- Vegetation Category 1
- Vegetation Category 2
- Vegetation Category 3
- Vegetation Buffer

2 Bushfire Hazard Assessment

2.1 Preface

The bushfire hazard assessment was conducted for the proposed development using the methodology described in Appendix 1 of PBP 2019 to determine the bushfire attack level (BAL) likely upon the development.

Properties that are located within a designated Bushfire Prone Area as identified by a Council Area Bushfire Prone Map and Registered with the NSW RFS, must have either a Bushfire Hazard Assessment or a Bushfire Hazard Certificate (in certain Complying Development instances) completed and submitted prior to Council or a Private Certifier being able to approve the development.

The Development Application to Northern Beaches Council is for the proposed demolition of the existing dwelling and the construction of a replacement dwelling on the subject Lot is Residential Infill Development and as such must comply with Section 4.14 of the EP&A Act 1979 and Chapter 7 of PBP 2019. The subject Lot has direct access to Ralston Rd to the South which is a surfaced two-lane road.

The hazardous bushfire vegetation that is a potential bushfire risk to the proposal is Forest Classified Vegetation located 78m in the Southern aspect and 80m in the Western aspect of the proposed dwelling.

There is no category of hazardous bushfire vegetation within 100m of the proposed in the Northern or Eastern aspects as identified on the Northern Beaches Council LGA Bushfire Prone Land Map.

2.2 Location

The subject Lot is located at 31 Ralston Rd, Palm Beach. NSW 2108 (Lot 15 Section 4 DP 14048) and is within a residential area of the Northern Beaches Council LGA.

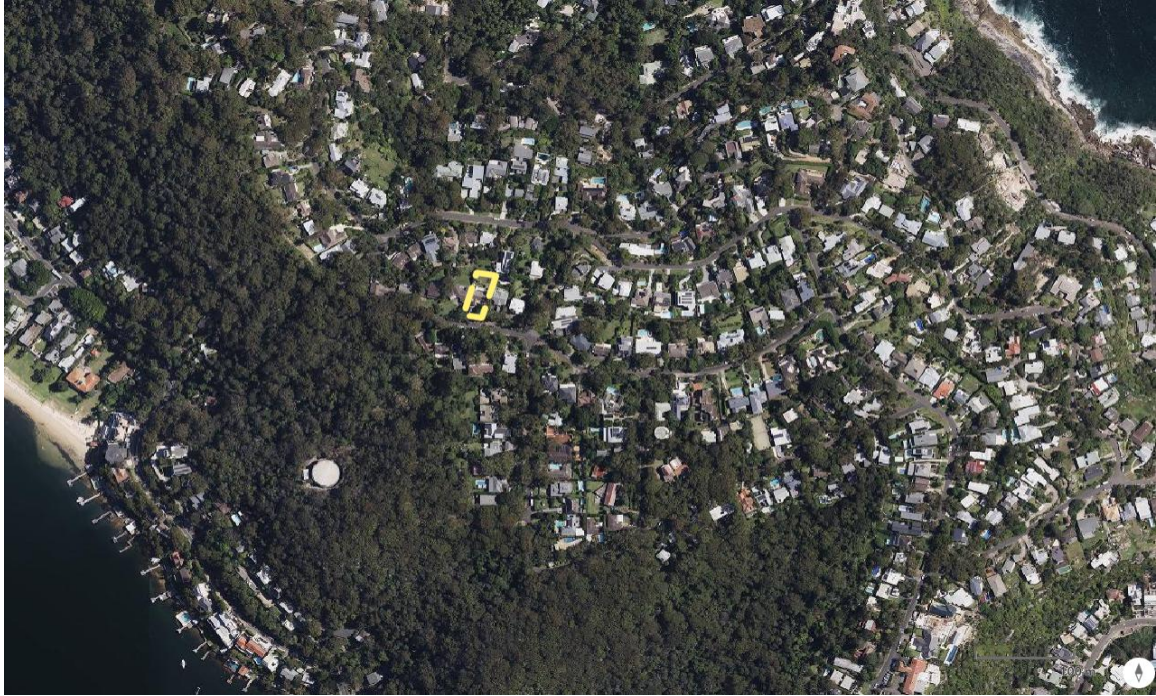


Image 3 - Site Aerial. (NSW Government 2025)



Figure 2 - Street Location of Property (NSW Government 2025)

2.3 Vegetation

The hazardous vegetation that is a potential bushfire risk is Forest Classified Vegetation located 78m in the Southern aspect and 80m in the Western aspect of the proposed dwelling.

Northern Beaches Council has deemed the hazardous vegetation to be Category 1 Bushfire Hazard Vegetation as indicated on the Northern Beaches Council LGA Bushfire Prone Land Map.

However, the Northern Beaches Council LGA Bushfire Prone Land Map indicates the Forest Classified Vegetation is located 92m in the Southern aspect, as opposed to my assessment of 78m and, 93m in the Western aspect, as opposed to my assessment of 80m. For this hazard assessment, I am using the 78m and 80m distances as determined in my site assessment.

The Forest Classified Vegetation is classed as *Sydney Coastal Enriched Sandstone Forest - Sydney Coastal Dry Sclerophyll Forests* by the NSW Government Trees Near Me application and, is located within McKay Reserve.

The area of Forest Classified Vegetation in the Southern aspect was recently “treated” with a hazard reduction in the past 6 months and, whilst there is a low fuel load currently, the surface and elevated fuels will regenerate resulting in this area of vegetation to return to being a potential bushfire risk to the proposed development.

Forest Classified Vegetation is described as a tall to very tall shrubby sclerophyll open forest with the tree canopy including a high cover of *Angophora costata* in combination with *Corymbia gummifera* and *Eucalyptus piperita*. The taller mid-stratum is characterised by a sparse cover of *Pittosporum undulatum* and *Allocasuarina littoralis* and *Allocasuarina torulosa*.

The mid-dense lower shrub layer is comprised of dry sclerophyll species including *Leptospermum trinervium*, *Persoonia levis*, *Lomatia silaifolia*, *Acacia ulicifolia* and *Dodonaea triquetra*. occasionally. The ground layer has a sparse cover of graminoids that almost includes *Dianella caerulea* and *Lomandra longifolia* with the grass *Entolasia stricta* and fern *Pteridium esculentum*, with evidence of climbers such as *Smilax australis*

Aspect	Vegetation Formation	Distance to Hazard
Northern	Maintained Land N/A	>100m
Southern	Forest	78m
Eastern	Maintained Land N/A	>100m
Western	Forest	80m

Table 2 – Distances to Classified Bushfire Hazard Vegetation



Image 4 – Indicates the distances to Category 1 Bushfire Hazard Vegetation – Forest Classified Vegetation in the Southern and Western aspects (Mecone Mosaic 2025)



Photo 1 – Indicates the Forest Classified Vegetation located in the Western aspect of the proposed development (Steve Brooks 2025)



Photo 2 – Indicates the understory of the Forest Classified Vegetation located in the Western aspect of the proposed development (Steve Brooks 2025)



Photo 3 – Indicates the Forest Classified Vegetation located in the South-Western aspect of the proposed development (Steve Brooks 2025)



Photo 4 – Indicates the understory of the Forest Classified Vegetation located in the South-Western aspect of the proposed development (Steve Brooks 2025)



Photo 5 – Indicates the Forest Classified Vegetation located in the Southern aspect of the proposed development which was “treated” with a hazard reduction in the past 6 months (Steve Brooks 2025)



Photo 6 – Indicates the understory of the Forest Classified Vegetation located in the Southern aspect of the proposed development which was recently “treated” with a hazard reduction in the past 6 months (Steve Brooks 2025)

2.4 Slope

The effective slope that would most significantly affect bushfire behaviour is assessed for no less than 100 metres from the proposed development. The slope is measured under the identified hazard.

The effective slope under the Forest Classified Vegetation located in the Southern aspect is 4° Downslope and, the effective slope under Forest Classified Vegetation in the Western aspect is 16° Downslope.

The need to assess the effective slopes in the Northern and Eastern aspects is not required as there is no hazardous bushfire vegetation located within 100m of the proposed development in these aspects.

	Northern	Southern	Eastern	Western
	<input checked="" type="checkbox"/> N/A >100m	<input type="checkbox"/> N/A >100m	<input checked="" type="checkbox"/> N/A >100m	<input type="checkbox"/> N/A >100m
	<input type="checkbox"/> Upslope Flat	<input type="checkbox"/> Upslope Flat	<input type="checkbox"/> Upslope Flat	<input type="checkbox"/> Upslope Flat
	<input type="checkbox"/> 0-5	<input checked="" type="checkbox"/> 0-5	<input type="checkbox"/> 0-5	<input type="checkbox"/> 0-5
	<input type="checkbox"/> >5-10	<input type="checkbox"/> >5-10	<input type="checkbox"/> >5-10	<input type="checkbox"/> >5-10
	<input type="checkbox"/> >10-15	<input type="checkbox"/> >10-15	<input type="checkbox"/> >10-15	<input type="checkbox"/> >10-15
	<input type="checkbox"/> > 15-20	<input type="checkbox"/> > 15-20	<input type="checkbox"/> > 15-20	<input checked="" type="checkbox"/> > 15-20

Table 3 - Degree of Slope under the Classified Bushfire Hazard Vegetation



Image 5 - Indicates the degree of slope under the hazardous bushfire vegetation in the Southern and Western aspects (Mecone Mosaic 2025)

2.5 Asset Protection Zones

Asset Protection Zones are a fuel-reduced area surrounding a building or structure. It is located between the building or structure and the bushfire hazard and provides: a Buffer Zone between a bushfire hazard and an asset; an area of reduced bushfire fuel that allows for suppression of fire; an area from which backburning or hazard reduction can be conducted; and an area which allows emergency services access and provides a relatively safe area for firefighters and homeowners to defend their property.

The proposed development of the construction of a dwelling on the subject Lot has been found to have an Asset Protection Zone (APZ) of >100m in the Northern aspect to any category of hazardous bushfire vegetation, 78m in the Southern aspect to Forest Classified Vegetation, >100m in the Eastern aspect to any category of hazardous bushfire vegetation and 80m in the Western aspect to Forest Classified Vegetation.

The subject Lot will be maintained as an IPA within the boundaries of the subject Lot in all aspects and includes maintained land in neighbouring Lots in the Northern, Southern, Eastern and direct Western aspects which meets the intent of Section 3.2 - Asset Protection Zones, Section A.1.10 – Low Threat Vegetation Exclusions and Appendix 4 – APZ Requirements of PBP 2019.

Direction/Aspect	Effective Slope	Distance to Hazard	Required by PBP Table A1.12.2	Vegetation Classification	Complies
Northern	N/A	>100m	N/A	Maintained Land	Yes
Southern	4° Downslope	78m	29m	Forest	Yes
Eastern	N/A	>100m	N/A	Maintained Land	Yes
Western	16° Downslope	80m	56m	Forest	Yes

Table 4 -APZ distances as required by Table A1.12.2 of PBP 2019



Image 6 – Indicates the APZs to hazardous bushfire vegetation (Mecone Mosaic 2025)



Photo 7 – Indicates maintained land within the APZ within the boundaries of No.37 Ralston Rd (Steve Brooks 2025)



Photo 8 – Indicates maintained land within the APZ within the boundaries of No.39 Ralston Rd (Steve Brooks 2025)

2.6 Compliance with AS 3959-2018

Based on the known Vegetation Classification, Distance from Vegetation (APZ), Effective Slope and FDI for the subject Lot, the BAL for the proposed construction of a dwelling can be determined in accordance with Table A1.12.5 of PBP 2019. The FDI for Northern Beaches Council is 100.

The following BAL has been determined for the proposed construction of a dwelling on the subject Lot located at 31 Ralston Rd, Palm Beach. NSW 2108.

Aspect	Distance to Vegetation	Vegetation Classification	Slope in degrees	Construction Requirements AS3959-2018
Northern	>100m	Maintained Land	N/A	BAL-LOW
Southern	78m	Maintained Land	4° Downslope	BAL-12.5
Eastern	>100m	Maintained Land	N/A	BAL-LOW
Western	80m	Forest	16° Downslope	BAL-19

Table 5 - Construction requirements of AS3959-2018.

The proposed development has been found to be in the BAL-19 range of AS3959-2018 and will be required to meet the construction standards required in Sections 3, 5 & 6 of AS3959-2018.

The final BAL Ratings have been determined as BAL-19 for the Southern and Western elevations and BAL-12.5 for the Northern and Eastern elevations.

The reason why the Southern elevation is rated as BAL-19 is due to the potential exposure to radiant heat and/or ember attack from a bushfire in vegetation in Western aspect of the proposed dwelling.

Furthermore, I have deemed the Northern elevation as BAL-19 as the hazardous bushfire vegetation in the Western aspect is more West-South-West of the proposed dwelling and the Northern elevation will be shielded from the effects of bushfire behaviour

The proposed dwelling will also need to comply with the construction requirements outlined in Section 7.5 – Additional Construction Requirements of PBP 2019 therefore, any decking, stairs, landings, ramps or verandas are rated BAL-29 and are to be constructed to meet the construction requirements outlined in Section 7 of AS3959-2018. Any sarking used for BAL-12.5, BAL-19, BAL-29 or BAL-40 shall: be non-combustible; or comply with AS/NZS 4200.1, be installed on the outside of the frame and have a flammability index of not more than 5 as determined by AS 1530.2.

PBP allows where more than one facade is exposed to a hazard, then the facade with the highest requirement is used to determine the appropriate level of construction. Other

facades may be reduced by one level of construction unless that facade is also subject to the same level of bushfire attack. Should the highest level be BAL-12.5 then the entire site shall be deemed as BAL - 12.5.

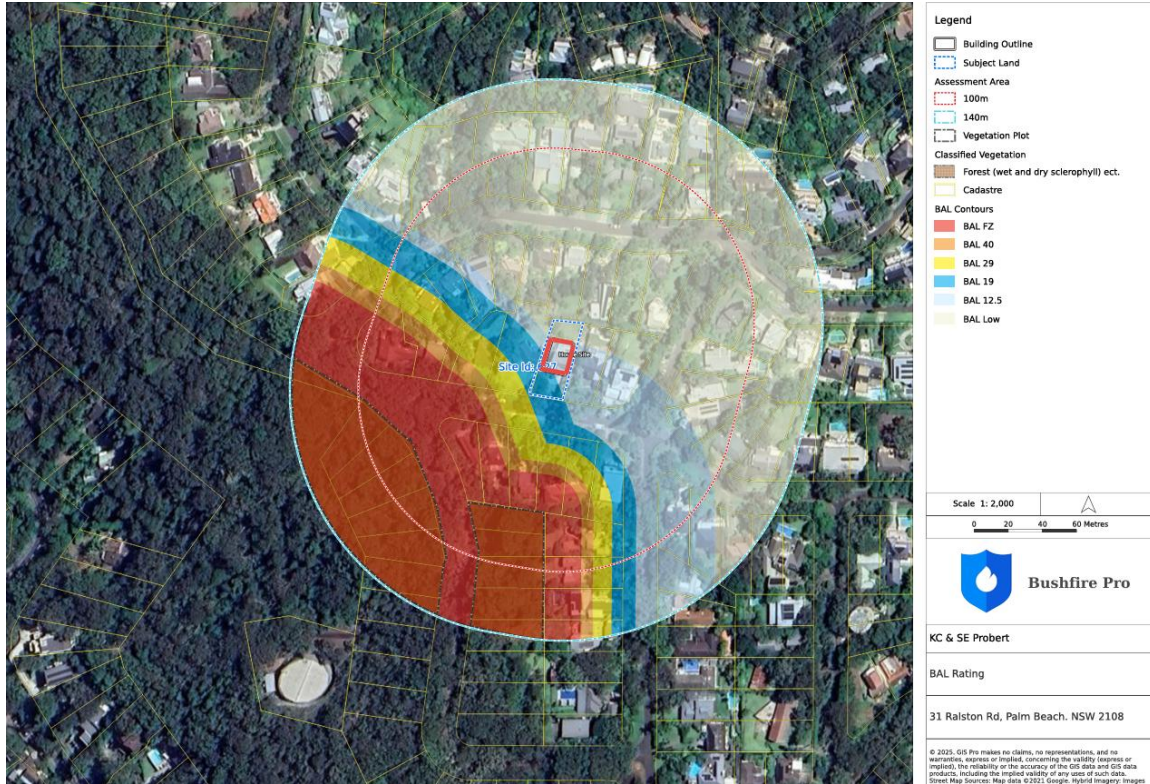


Figure 3 – The BAL rating for the proposed dwelling with the building outline identified by the red rectangle (Bushfire Pro 2025)

3 Site Constraints

The subject Lot has been identified by the NSW Government and Northern Beaches Council to contain Terrestrial Biodiversity Vegetation across a portion of the Lot; however, this will not have a negative effect on the proposed development being granted consent approval from Northern Beaches Council.

The subject Lot has not been identified by the NSW Government nor Northern Beaches Council to contain any other cultural, or environmentally significant features.



Figure 4 – Indicates the area within the boundaries of the subject Lot that is identified as Terrestrial Biodiversity Vegetation (NSW Government 2025)

4 Compliance with the Performance Criteria of Table 7.4a of PBP 2019

The following indicates that the proposed development complies/not complies with the Performance Criteria outlined in Table 7.4a of PBP 2019 for Residential Infill Development.

Performance Criteria Section 7 PBP 2019	Acceptable Solution	Compliance
Asset Protection Zones APZs are provided commensurate with the construction of the building; and A defensible space is provided.	An APZ is provided in accordance with Table A1.12.2 or A1.12.3 in Appendix 1.	Complies – The APZs in the Northern Southern, Eastern and Western meet the required distances outlined in Table A1.12.2. for FDI-100 areas.
APZs are managed and maintained to prevent the spread of a fire to the building.	APZs are managed in accordance with the requirements of Appendix 4 of PBP.	Complies – The APZ is to be managed/maintained in perpetuity as an IPA in all aspects within the subject Lot and neighbouring maintained land in the Northern, Southern, Eastern and Western aspects. The IPA on the subject Lot will be managed in accordance with Appendix 4 of PBP 2019.
The APZ is provided in perpetuity.	APZs are wholly within the boundaries of the development site and	Complies – the APZs are within the subject Lot boundaries in all aspects and neighbouring maintained land in the Northern, Southern, Eastern and Western aspects.
The APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimized.	The APZs are located on lands with a slope less than 18 degrees.	Complies – The APZ of the proposed development and is made up of maintained land within the subject Lot and neighbouring

Performance Criteria Section 7 PBP 2019	Acceptable Solution	Compliance
		maintained land in the Northern, Southern, Eastern and Western aspects which are <18 degrees slope.
In relation to access/egress: Firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation. The capacity of access roads is adequate for firefighting vehicles. Firefighting vehicles can access the dwelling and exit the property safely.	Property access roads are two-wheel drive, all-weather roads. The capacity of road surfaces and any bridges/ causeways is sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes), bridges and causeways are to clearly indicate load rating. There are no specific access requirements in an urban area where an unobstructed path (no greater than 70m) is provided between the most distant external part of the proposed dwelling and the nearest part of the public access road (where the road speed limit is not greater than 70kph) that supports the operational use of emergency firefighting vehicles.	Complies - The subject Lot has direct access to Ralston Rd which is a sealed two-wheel drive all weather road. Complies - The capacity of Ralston Rd and surrounding roads, are enough to carry fully loaded firefighting vehicles (up to 23 tonnes). Complies – The proposed dwelling can be accessed without placing emergency personnel in an unsafe environment. The proposed dwelling footprint is <70m from the roadway.

Performance Criteria Section 7 PBP 2019	Acceptable Solution	Compliance
<p>In relation to Water Supplies</p> <p>An adequate water supply is provided for firefighting purposes.</p>	<p>Reticulated water is to be provided to the development, where available; and a static water supply is provided where no reticulated water is available in accordance with Table 5.3d.</p>	<p>Complies - The site is connected to reticulated mains pressure water supply and there is fire hydrants located along Ralston Rd with the nearest being located outside No.29 Ralston Rd and No.35 Ralston Rd.</p>
<p>Water supplies are located at regular intervals; and the water supply is accessible and reliable for firefighting operations.</p>	<p>Fire hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1:2021; hydrants are not located within any road carriageway; and reticulated water supply to urban subdivisions uses a ring main system for areas with perimeter roads.</p>	<p>Complies – There are fire hydrants located along Ralston Rd with nearest being located outside No.29 Ralston Rd and No.35 Ralston Rd.</p>
<p>Flows and pressure are appropriate.</p>	<p>Fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1:2021.</p>	<p>Complies</p>
<p>The integrity of the water supply is maintained.</p>	<p>All above-ground water service pipes external to the building are metal, including and up to any taps.</p>	<p>Complies - All above-ground service pipes to the proposed dwelling, including taps, will be metal.</p>

Performance Criteria Section 7 PBP 2019	Acceptable Solution	Compliance
<p>In relation to Electricity Supply:</p> <p>The Location of electricity services limits the possibility of ignition of surrounding bushland or the fabric of buildings.</p>	<p>Where practicable, electrical transmission lines are underground; and where overhead, electrical transmission lines are proposed as follows: lines are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; and no part of a tree is closer to a power line than the distance set out in accordance with the specifications in ISSC3 Guideline for Managing Vegetation Near Power Lines.</p>	<p>Complies – The proposed dwelling will be provided with electricity via an underground supply which is clear of trees and branches.</p>
<p>In relation to Gas Supply:</p> <p>The location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings.</p>	<p>Reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used; all fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side.</p> <p>Connections to and from gas cylinders are metal.</p> <p>Polymer-sheathed flexible gas supply lines are not used; and above-ground gas service pipes are metal,</p>	<p>Complies – The site is not connected to reticulated gas supply. Any future gas connection shall comply with AS/NZS 1596:2014</p>

Performance Criteria Section 7 PBP 2019	Acceptable Solution	Compliance
	including and up to any outlets.	
<p>In relation to Construction Standards:</p> <p>The proposed building can withstand bush fire attack in the form of embers, radiant heat and flame contact.</p>	<p>BAL is determined in accordance with Tables A1.12.5 to A1.12.7; and construction provided in accordance with the NCC and as modified by section 7.5 (please see advice on construction in the flame zone).</p>	<p>Complies - The proposed construction of a dwelling has been found to be in the BAL-19 range of AS3959-2018 as per Table A1.12.5 of PBP and will be constructed to meet the requirements outlined in Sections 3, 5 & 6 of AS3959-2018. Furthermore, the proposed development will also need to comply with Section 7.5 – Additional Construction requirements of PBP 2019 therefore, any decking, stairs, landings, ramps or verandas are rated BAL-29 and are to be constructed to meet the construction requirements outlined in Section 7 of AS3959-2018. Any sarking used for BAL-12.5, BAL-19, BAL-29 or BAL-40 shall: be non-combustible; or comply with AS/NZS 4200.1, be installed on the outside of the frame and have a flammability index of not more than 5 as determined by AS 1530.2.</p>
<p>Proposed fences and gates are designed to minimise the spread of bushfire.</p>	<p>Fences and gates are constructed in accordance with section 7.6.</p>	<p>N/A</p>

Performance Criteria Section 7 PBP 2019	Acceptable Solution	Compliance
Proposed Class 10a buildings are designed to minimise the spread of bushfire.	Class 10a buildings are constructed in accordance with section 8.3.2.	Complies – The garage is to be constructed to bushfire construction standards for BAL-19.
In relation to Landscaping: Landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions	Compliance with the NSW RFS ‘Asset protection zone standards’ (see Appendix 4); a clear area of low-cut lawn or pavement is maintained adjacent to the house; fencing is constructed in accordance with section 7.6; and trees and shrubs are located so that: the branches will not overhang the roof; the tree canopy is not continuous; and any proposed windbreak is located on the elevation from which fires are likely to approach	Complies – The APZ will be managed as an Inner Protection Area in the Northern, Southern, Eastern and Western aspects within the boundaries of the subject Lot and neighbouring maintained land in all aspects. The APZs meet the standards outlined in Appendix 4 of PBP 2019 in relation to APZ Standards The proposed dwelling building footprint is in a clear area with no trees or shrubs in the vicinity.

Table 6 – Compliance with the performance criteria of Table 7.4a of PBP 2019

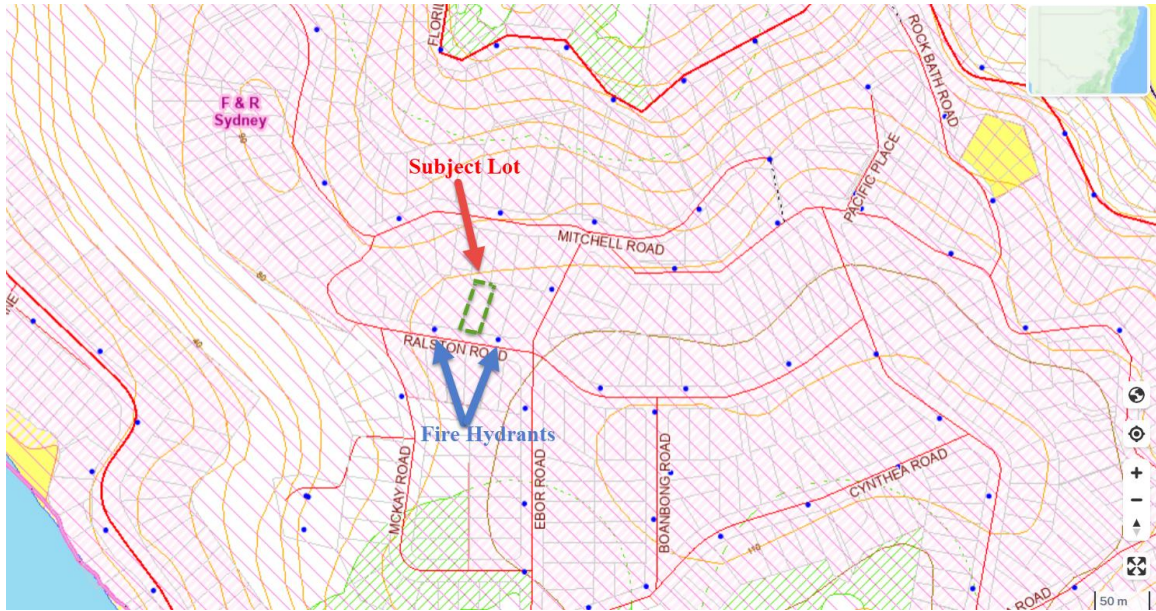


Figure 5 – Indicates the location of the nearest fire hydrants (NSW RFS 2025)

5 Recommendations

- 1- The proposed construction of a dwelling has been assessed as BAL-19 of AS3959-2018 and is recommended to comply with the construction standards outlined in Sections 3, 5 & 6 of AS3959-2018.
- 2- The proposed construction of the dwelling must also comply with the construction standards outlined in Section 7.5 – Additional Construction Standards of AS3959-2018 therefore, any decking, stairs, landings, ramps or verandas are rated BAL-29 and are to be constructed to meet the construction requirements outlined in Section 7 of AS3959-2018. Any sarking used for BAL-12.5, BAL-19, BAL-29 or BAL-40 shall: be non-combustible; or comply with AS/NZS 4200.1, be installed on the outside of the frame and have a flammability index of not more than 5 as determined by AS 1530.2.
- 3- All above ground water pipes external to the proposed dwelling are to be metal including and up to any taps.
- 4- Any future gas connection is installed and maintained in accordance with AS1596, metal piping should be used.
- 5- The Asset Protection Zone is to be maintained as an Inner Protection Area within the boundaries of the subject Lot in all aspects and the vegetation selections for landscaping, vegetation management and property management should be in accordance with Appendix 4 PBP 2019.
- 6- It is recommended that a Bushfire Emergency Plan be developed for the proposed dwelling.

It is recommended that Northern Beaches Council and the NSW Rural Fire Service approve the proposed demolition of the existing dwelling and, the construction of a dwelling on the subject Lot at 31 Ralston Rd, Palm Beach. NSW 2108 in respect to Bushfire Requirements.

6 Conclusion

The Development Application to Northern Beaches Council for the demolition of the existing dwelling and, the proposed construction of a dwelling located on the subject Lot at 31 Ralston Rd, Palm Beach. NSW 2108 can meet the planning requirements of *Planning for Bushfire Protection* 2019 and, are capable of meeting Australian Standard AS3959-2018 and the *Building Code of Australia* in relation to construction standards.

The subject Lot has been identified to be located within a Category 1 Bushfire Hazard Vegetation Buffer Zone as per the Northern Beaches Council LGA Bushfire Prone Land Map.

The hazardous bushfire vegetation that is a potential risk to the proposal is Category 1 Bushfire Hazard Vegetation – Forest Classified Vegetation located 78m in the Southern aspect and 80m in the Western aspect of the proposed dwelling.

In the Northern or Eastern aspects of the subject Lot and proposed development there is no Category of Bushfire Hazard Vegetation within 100m in these aspects as identified on the Northern Beaches Council LGA Bushfire Prone Land Map.

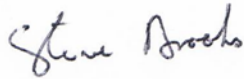
The BAL for the proposed construction of the dwelling on the subject Lot was determined from Table A.1.12.5 of PBP 2019 and rated to be BAL- 19 for the Southern and Western elevations and BAL-12.5 for the Northern and Eastern elevations. Therefore, the proposed construction of the dwelling will comply with the construction standards outlined in Sections 3, 5 & 6 of AS3959-2018.

The proposed development will also be required to comply with Section 7.5 - Additional Construction Requirements of PBP 2019, therefore, any decking, stairs, landings, ramps or verandas are rated BAL-29 and are to be constructed to meet the construction requirements outlined in Section 7 of AS3959-2018. Any sarking used for BAL-12.5, BAL-19, BAL-29 or BAL-40 shall: be non-combustible; or comply with AS/NZS 4200.1, be installed on the outside of the frame and have a flammability index of not more than 5 as determined by AS 1530.2

The required Asset Protection Zones determined from Table A.1.12.2 of PBP 2019 exceed the requirements. The proposal has Asset Protection Zones made up from an Inner Protection Area within the boundaries of the subject Lot in all aspects and neighbouring maintained land in the Northern, Southern, Eastern and direct Western aspects which meets the intent of Section 3.2 Asset Protection Zones, Section A1.10 – Low Threat Vegetation Exclusions and Appendix 4 – APZ Requirements of PBP 2019.

In accordance with the bushfire measures contained with this report and the site-specific assessment as per Appendix 2 of PBP 2019. It is my opinion that combined will provide a satisfactory level of bushfire safety to the property and satisfies the requirements of the RFS and Councils obligations for this area.

Prepared by Steve Brooks



BPAD - Certification No. 40765

Graduate Diploma Bushfire Planning and Design (UWS)

Graduate Certificate in Fire Investigation (CSU)



References

- Australian Building Codes Board (ABCB), 2022, *Building Code of Australia*, Volume 2, Canberra.
- Keith David, 2004, *Ocean Shores to Desert Dunes: the native vegetation of NSW and the ACT*, Dept of Environment and Conservation, NSW Government.
- Environmental Planning and Assessment Act 1979. NSW Government
- NSW Rural Fire Service, 2019, *Planning for Bushfire Protection*. Sydney
- NSW Rural Fire Service, 2025, website – www.rfs.nsw.gov.au :
- Standards Australia, AS 3959-2018 *Construction in Bushfire Prone Areas* SAI Global, Melbourne.
- NSW Government E-Planning Spatial Viewer 2025
- Mecone Mosaic 2025
- Nearmap 2025

Appendix 1
Site Photos



Photo 9 – Indicates Ralston Rd looking East (Steve Brooks 2025)



Photo 10 – Indicates the reticulated mains pressure fire hydrant located outside No.29 Ralston Rd (Steve Brooks 2025)



Photo 11 – Indicates that a Fire rescue NSW Community Fire Unit is located within the vicinity (Steve Brooks 2025)