



Bushfire Hazard Assessment Report

For Proposed – Construction of a dwelling

284 Tallwoods Drive, Tallwoods Village. NSW 2430



19th November 2021

Prepared By:
The Fire Consultants
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Bushfire Risk Assessment Certificate

This certificate has been 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>	284 Tallwoods Drive, Tallwoods Village. NSW 2430
<i>Description of Development</i>	Construction of a dwelling
<i>References</i>	Plans as provided by applicant
<i>BAL Rating as per Table A1.12.5 of PBP 2019</i>	BAL-29
<i>Does Proposal rely on Alternate Solutions</i>	No
<i>Is Referral to NSW RFS Required</i>	No
<i>Date</i>	19/11/2021

I, Steve Brooks of The Fire Consultants have carried out a bushfire risk assessment on the above property and its proposal for development. A detailed report is attached.

I certify that I am a person recognised by the NSW Rural Fire Service as a qualified consultant in bushfire risk management and that subject to any conditions contained in the attached bushfire risk assessment report the development conforms to the relevant specifications and requirements of Planning for Bushfire Protection 2019 (NSWRFS) and any other document as prescribed by Section 4.14 of the Environmental Planning and Assessment Act 1979.

The Bushfire Assessment Report prepared for the above property will be relied upon by Council and may be submitted in support of the proposed Development Application for the property in ensuring that the bush fire requirements have been met in accordance with Planning for Bushfire Protection 2019 (NSWRFS).

A handwritten signature in black ink that reads 'Steve Brooks'.

BPAD - Certification No. 40765
Graduate Diploma Bushfire Planning and Design (UWS)
Graduate Certificate in Fire Investigation (CSU)
Wattlegrove Services Pty Ltd T/as The Fire Consultants



Abbreviations Used

TFC – The Fire Consultants

AS3959 -2018 – Construction of Buildings in Bushfire Prone Areas

PBP 2019 – Planning for Bushfire Protection (NSW Rural Fire Service)

RFS - Rural Fire Service

BCA - Building Code of Australia

EP&A Act- Environmental Planning and Assessment Act 1979

BAL - Bushfire Attack Level

APZ - Asset Protection Zone

FRNSW - Fire Rescue NSW

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Disclaimer

The assessment and recommendations contained in this Bush Fire Assessment are the views of TFC. The bushfire protection assessment, recommendations and strategies contained in this report are intended to address the submission requirements for developments on bush fire prone land as required by Section 100B of the RFS Act 1997 and or S 4.14 of the EP&A Act 1979.

Whilst care is taken in the assessment and report, TFC Ltd does not warrant that the information contained in this report will be free from error or omission. Also, there is no implied assurance nor guarantee that compliance with the strategies and recommendations contained in this report will result in a development application consent being granted by the approving authority. TFC will not be liable for any financial losses incurred throughout the development planning and application process, should an application not be successful.

A bushfire may be unpredictable and, in many cases, perform differently to the measurements and assumptions of this report and AS3959. Therefore the information contained in this report cannot be used as a guarantee against any damages or losses resulting from any bushfire events.

Document Control

Document Name	Project Ref	Date	Author	Status
284 Tallwoods Drive	1	19/11/2021	S. Brooks	Complete

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Executive Summary

This report has been prepared as a Bushfire Hazard Assessment for the proposed construction of a dwelling located on the subject Lot at 284 Tallwoods Drive, Tallwoods Village. NSW 2430 in the Mid Coast Council LGA.

The proposal is “Residential Infill Development” and has been identified as being bushfire prone and is subject to consideration under Section 4.14 of the Environmental Planning and Assessment Act 1979 (EP&A Act) (NSW RFS 2019).

The subject Lot is located within a Category 1 Bushfire Hazard Buffer Zone as per the Mid Coast Council LGA Bushfire Prone Land Map.

The nearest Bushfire Hazard Vegetation, Category 1 Bushfire Hazard Vegetation – Grassland Classified Vegetation is located 20m North of the proposed dwelling. The effective slope under the Grassland Classified Vegetation is Upslope/Flat.

Furthermore, there is Forest Classified Vegetation located beyond the Grassland Classified Vegetation and is located 41m from the proposed dwelling. The effective slope under the Forest Classified Vegetation is 7° Downslope. To the West at 65m is Forest Classified Vegetation with an effective slope of 11° Downslope.

The proposed construction of the dwelling has been found to be in the BAL – 29 range of AS3959-2018 Construction of buildings in bushfire prone areas as per Table A1.12.5 of Planning for Bushfire Protection 2019.

The proposed dwelling is also required to comply with Section 7.5 Additional Construction Standards of PBP 2019. It will also need to meet the objectives, performance criteria and acceptable solutions of PBP 2019 (NSW RFS 2019).

Building Elevation	Construction Standard
North	BAL -29 AS3959
South	BAL -19
East	BAL -29
West	BAL -29

Table 1 – BAL Rating for the proposed construction of the dwelling

1. Introduction

This report forms a Bushfire Assessment Report to Mid Coast Council for the purposes of Section 4.14 of the Environmental Planning and Assessment Act 1979 (EP&A Act). The report identifies that the proposal can meet the requirements of Planning for Bushfire Protection (2019), AS3959-2018 Construction of buildings in bushfire prone areas and the Building Code of Australia 2019.

This report has been prepared in accordance with the submission requirements of Appendix 2 of Planning for Bushfire Protection (NSW RFS 2019). The site is identified as being within a Category 1 Bushfire Hazard Vegetation Buffer Zone as per the Mid Coast Council LGA Bushfire Prone Land Map and therefore compliance with Bushfire Legislation is required.

The proposed development is for the construction of a dwelling located on the subject Lot at 284 Tallwoods Drive, Tallwoods. NSW 2430. This report forms a Bushfire Assessment Report to Mid Coast Council for the purposes of Section 4.14 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

2. Purpose of this Report

The purpose of a Bushfire Hazard Assessment Report is to provide the consent authority, owners and RFS with a bushfire hazard determination consistent with the aim and objectives of Planning for Bushfire Protection 2019 (RFS) and Section 4.14 of the EP&A Act 1979. Such report provides the necessary recommendations for new building construction standards and any further bushfire mitigation measures appropriate having regard the hazard and particular circumstances of the development.

The recommendations provided in this report will assist Council and the Owner in proving a construction standard consummate with bushfire safety standards so that a safer level is provided should a bushfire occur on or near the property.

Property Details

Council:	Mid Coast
Council Reference	N/A
Address:	284 Tallwoods Drive, Tallwoods Village NSW 2430
	Lot 700 DP 1061078
Site Area:	734 sqm approx.
Zoning	R1 – General Residential

3. Proposal

The proponent seeks to construct a dwelling located on the subject Lot located at 284 Tallwoods Drive, Tallwoods Village. NSW 2430. The site is also known as Lot 700 DP 1061078. It is bounded by residential development to the South, East, and West.

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

The nearest Bushfire Hazard Vegetation is Grassland Classified Vegetation is located 20m North of the proposed dwelling. The effective slope under the Grassland Classified Vegetation is Upslope/Flat.

Further North, at 41m from the proposed dwelling is Forest Classified Vegetation. The effective slope under the Forest Classified Vegetation is 7° Downslope. To the West at 65m is Forest Classified Vegetation and the effective slope is 11° Downslope.

The land is zoned R1 – General Residential for residential purposes and the proposal is understood to comply with the requirements of the Mid Coast Council LEP and DCP. This report only addresses the planning and construction issues relevant to the proposal. The proposal constitutes Residential Infill Development as defined and as such must meet the performance criteria and acceptable solutions outlined in Table 7.4a in of Planning for Bushfire Protection 2019 (NSW RFS 2019).

Type of Proposal PBP 2019

<input checked="" type="checkbox"/>	New Building	<input checked="" type="checkbox"/>	Urban	<input type="checkbox"/>	Dual Occupancy
<input type="checkbox"/>	Rural Residential	<input type="checkbox"/>	Alterations/Additions	<input type="checkbox"/>	Isolated Rural

4. Scope of Report and Referenced Documents

The scope of this report is limited to the actual property concerned. A representative of TFC has visited the site and surrounding area but did not enter neighbouring private lands. This report is based on requirements of the EP&A Act, Planning for Bushfire Protection 2019, the Building Code of Australia (BCA) and AS3959 - 2018 Construction of buildings in Bushfire Prone areas. The methodology for this report is outlined in Appendix 1 of PBP 2019. Vegetation and site information was gathered from site inspection, Council Vegetation data and Aerial Photos. The report used base drawings as provided by the applicant to TFC.

5. Statement that the site is Bushfire Prone Land

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

A copy of the bushfire prone land status is shown below (Figure 1).

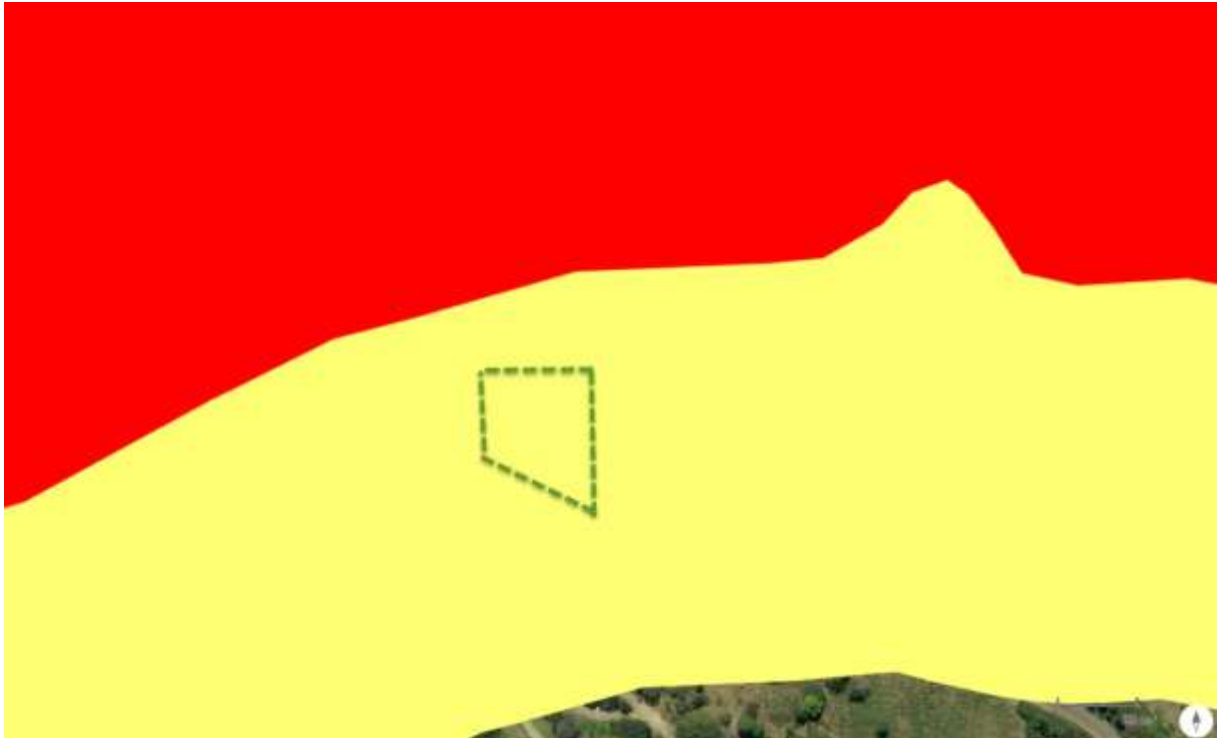


Figure 1- 284 Tallwoods Drive, Tallwoods Village. NSW 2430 Bushfire Prone Land Map (NSW Government 2021). It should be noted that the Bushfire Prone Land Map indicates that the subject Lot is identified as being located within a Category 1 Bushfire Hazard Vegetation Buffer Zone. It is important to note that the map above indicates that Category 1 Bushfire Hazard Vegetation begins at approx. 15m from the Northern boundary of the subject Lot. This is incorrect as the Forest Vegetation begins at 37m from the Northern boundary and the Grassland should be rated as Category 3 Bushfire Hazard Vegetation.

Hazard

Bushfire Prone Land

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

6. Bushfire Hazard Assessment

6.1 Preface.

This bushfire hazard assessment has been done according to the guidelines of Planning for Bushfire Protection 2019 (NSWRFS). Properties that are located within a designated Bushfire Prone Area as identified by a Council Area Bushfire Prone Map and Registered with the NSWRFS, 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 proposed development is for the construction of a dwelling is Residential Infill Development and as such, must comply with Section 4.14 of the EP&A Act 1979 and Section 7 of PBP 2019. The property is known as 284 Tallwoods Drive, Tallwoods Village. NSW 2430 (Lot 700 DP 1061078) and is within a residential area in the Mid Coast Council Local Government Area.

The property has direct access to Tallwoods Drive which runs to the North of the subject allotment. The Classified Bushfire Hazard Vegetation – Grassland Classified Vegetation, that is a potential bushfire hazard to the proposed development is located 20m in the Northern aspect from the proposed dwelling. Further North, at 41m from the proposed dwelling is Forest Classified Vegetation and 65m West is also Forest Classified Vegetation.

6.2 Location



Image 1 - Site Aerial. (Nearmap 2021)

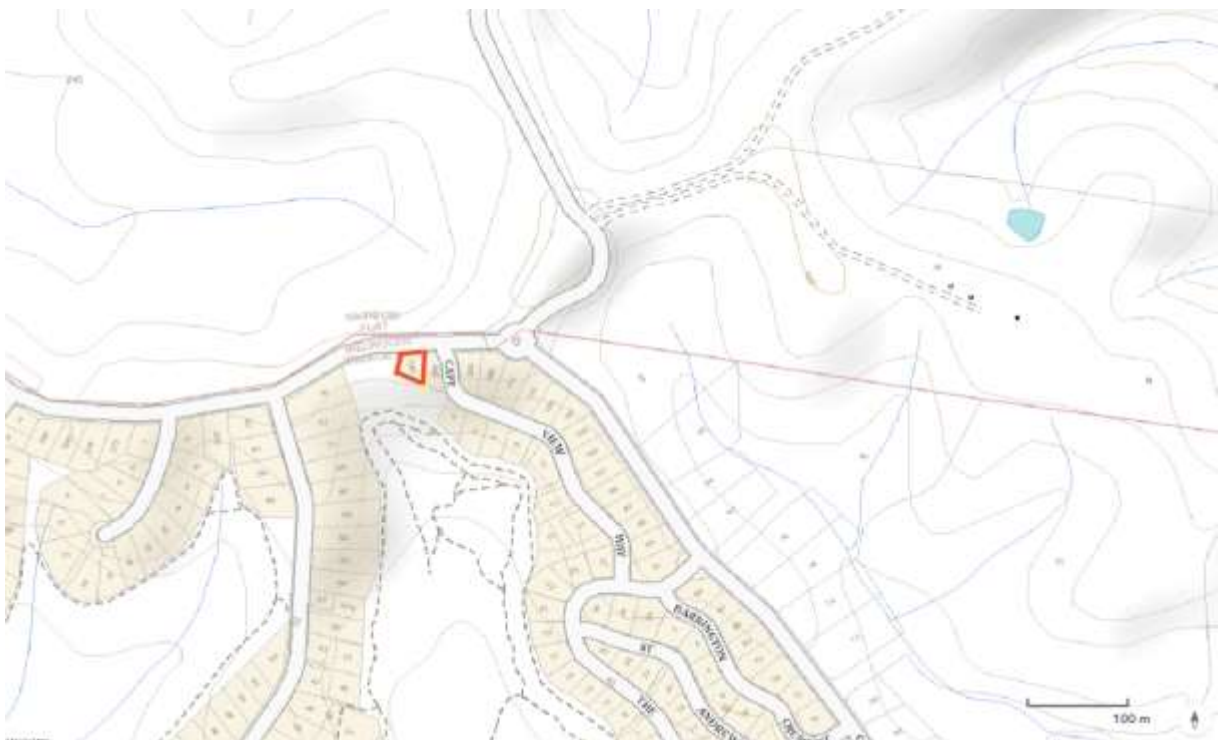


Figure 2 -Street Location of Property (NSW Government 2021)

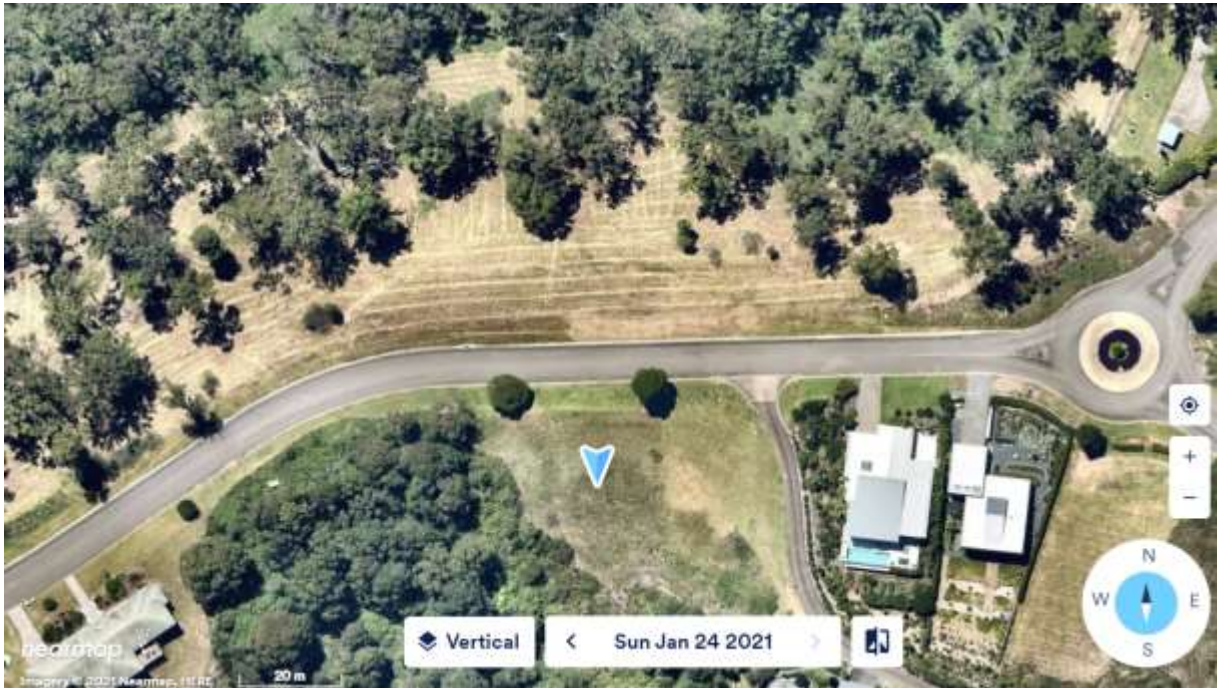


Image 2 – Site aerial (Nearmap 2021)

6.3 Vegetation.

The vegetation that effects the development and is deemed the "Hazard" is mapped by Council on the applicable Bushfire Prone Land Map as Category 1 Bushfire Hazard Vegetation. The subject Lot is cleared and the predominant Bushfire Hazard Vegetation formation using "Keith 2004" identification is Grassland Classified Vegetation and Forest Classified Vegetation located to the North of the proposed dwelling.

The Grassland Classified Vegetation is located 20m North of the proposed dwelling footprint. The Grassland appears to be routinely mown but I cannot guarantee that it will be maintained in perpetuity and therefore I have deemed it a potential bushfire hazard.

The Forest Classified Vegetation is located beyond the Grassland Classified Vegetation at 41m North from the proposed dwelling footprint and 65m to the West.

In the Southern and Eastern aspects there is no category of bushfire vegetation within 100m of the proposed development as indicated by the Mid Coast Council LGA Bushfire Prone Land Map. However, there is vegetation to the South and West of the subject Lot, but Mid Coast Council and the NSW RFS have not deemed it not to be hazardous vegetation. The separation distance to the hazard is assessed as follows -

Direction	Distance to Hazard
North Forest	41m
North Grassland	20m
South	>100m
East	>100m
West	65m



Image 2 - Indicates that the separation distance to Classified Bushfire Hazard Vegetation in the Northern aspect (Nearmap 2021).



Photo 1 – Indicates Grassland and Forest Classified Vegetation located to the North of the subject Lot (Steve Brooks 2021)

6.4 Slope

The effective slope that would most significantly affect a bushfire is assessed for 100 metres from the building. The slope that is measured is under the hazard.

The effective slope under the Grassland Classified Vegetation is Upslope/Flat. The effective slope under Forest Classified Vegetation is 7° Downslope in the Northern aspect and 11° Downslope in the Western aspect.

Since there is no Category 1 Bushfire Hazard Vegetation within 100m in the Southern and Eastern aspects from the proposed development, the need to assess the slope under the classified vegetation in these aspects is not applicable.

Direction	Effective Slope
North Forest	7° Downslope
North Grass	Upslope/Flat
South	N/A >100m
East	N/A >100m
West	11° Downslope

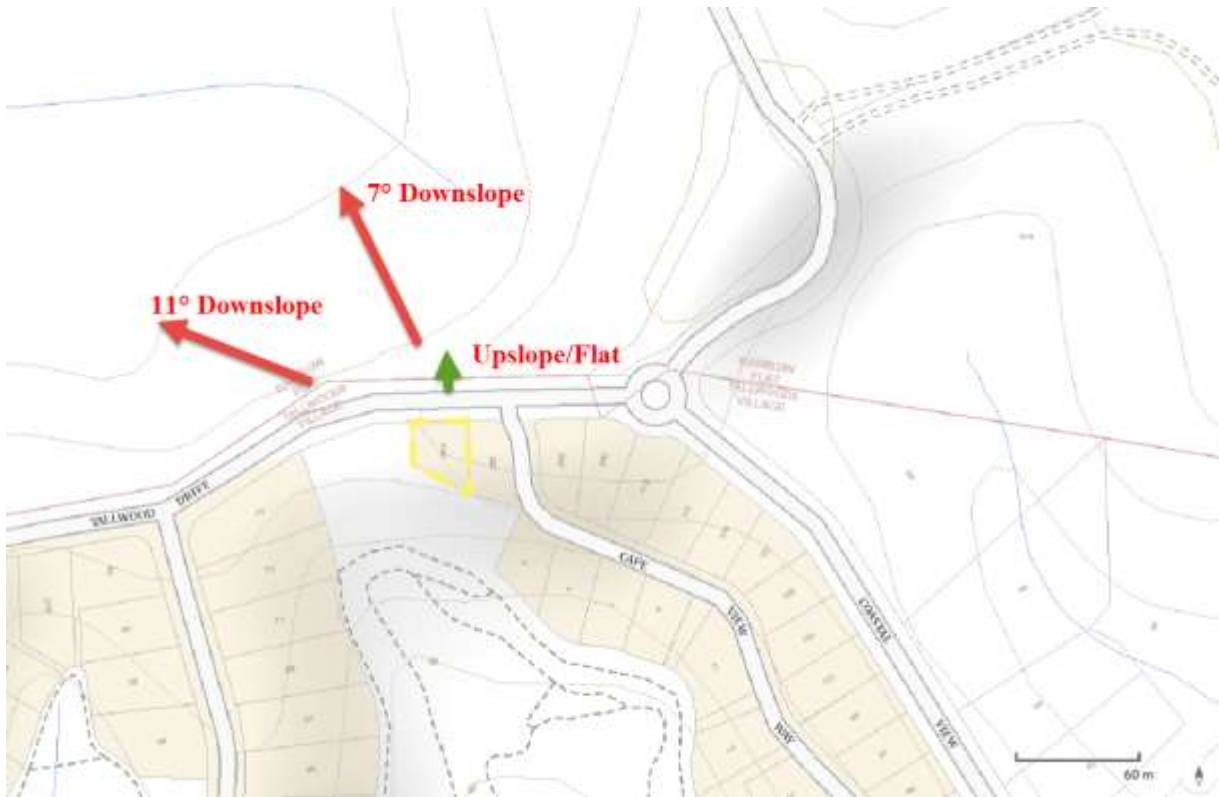


Figure 3 – Indicates the degree of effective slope under hazardous vegetation (NSW Government 2021) The Green Arrow is for Grassland and the Red Arrow is for Forest.

6.5 Asset Protection Zones (APZ)

The APZ for the proposed development is 41m (Forest) and 20m (Grassland) to the North, >100m to the South, >100m to the East and 65m to the West comprising of minimal distance on actual property and APZ made up of developed land. The classified vegetation located in the Northern aspect is Grassland and Forest Classified Vegetations and the Western aspect is Forest Classified Vegetation.

The APZs, in all aspects, have neighbouring developed land and roads which meets the intent of Section 3.2 – Asset Protection Zones and Appendix 4 – APZ Requirements of PBP 2019.

Direction/Aspect	Effective Slope	Distance to Hazard	Required by PBP Table 1.12.2	Land-use	Vegetation type/Formation	Complies
North	7° Downslope	41m	36m	Bushland Reserve	Forest	Yes
North	Upslope/Flat	20m	10m	Bushland Reserve	Grassland	Yes
South	N/A	>100m	N/A	Residential	Managed Land	Yes
East	N/A	>100m	N/A	Residential	Managed Land	Yes
West	N/A	65m	45m	Bushland Reserve	Forest	Yes

Table 2 - APZ distances



Image 4 – Indicates the APZ distances to Bushfire Hazard Vegetation (Nearmap 2021).

6.6 Hazard Assessment Determination

PBP refers to the appropriate construction standard for a development as determined by Table A1.12.5 of PBP 2019. This provides a recommendation for the Bushfire Attack (BAL) Level required for a development.

The following Bushfire Attack Levels have been determined for 284 Tallwoods Drive, Tallwoods Village. NSW 2430. FFDI Appropriate to Development – Mid Coast Council LGA 100.

Direction/ Aspect	Distance to Vegetation	Vegetation Formation	Slope in degrees	Construction Requirements AS3959-2018
North	41m	Forest	7° Downslope	BAL-29
North	20m	Grassland	Upslope/Flat	BAL-12.5
South	>100m	Developed Land	N/A	BAL-LOW
East	>100m	Developed Land	N/A	BAL-LOW
West	65m	Forest	11° Downslope	BAL-19

Table 3 - Summary of Building Compliance Requirements AS3959-2018.

The proposed development has been found to be in the BAL-29 range of AS3959-2018 and is required to be constructed to meet the standards outlined in Section 3, 6 & 7 of AS3959-2018. The proposed dwelling will also be required to meet the construction standards outlined in Section 7.5 – Additional Construction Standards of PBP 2019.

The Northern, Eastern and Western facades are to be constructed to meet the standards outlined in Sections 3 & 7 of AS3959-2019 and, the Southern façade is to be constructed to meet the standards outlined in Sections 3 & 5 of AS3959-2018.

The reason that the Eastern and Western facades have been rated as BAL-29 is due to the potential exposure from the effects of bushfire behaviour in the Northern aspect.

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.

6.7 Compliance with PBP 2019

The proposed development must also comply with the Performance Criteria and Acceptable Solutions of Table 7.4a of PBP 2019 for Infill Development. This assessment is provided below in detail.

Performance Criteria	Acceptable Solutions	Compliance
Asset Protection Zones APZs are provided commensurate with the construction of the building; and A defendable 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 aspects meet the required distances in Table A1.12.2.
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 will be managed/maintained as an IPA within the subject Lot, and in neighbouring developed Lots and roads to the Northern, Southern, Eastern, and Western aspects which meets the intent of Section 3.2 of PBP 2019. The APZ will be managed in accordance with Appendix 4 of PBP.
The APZ is provided in perpetuity and the APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised	APZs are wholly within the boundaries of the development site. and are located on lands with a slope less than 18 degrees.	Complies – the APZs are on Developed Maintained Lands in all aspects which also meets the intent of Section 3.2 of PBP 2019. The APZ is on a slope <18 degrees Downslope and the APZ is made up of maintained within the subject Lot and maintained land on neighbouring Lots and roads.
In relation to access/egress: Firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation.	Property access roads are two-wheel drive, all-weather roads.	Complies - The subject Lot has direct access to Tallwoods Drive which allows occupants an egress route to safety. Tallwoods Drive is a surfaced all-

<p>The capacity of access roads is adequate for firefighting vehicles.</p>	<p>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.</p>	<p>weather road and is suitable for fire appliances.</p> <p>Complies - The capacity of Tallwoods Drive and surrounding roads is enough to carry fully loaded firefighting vehicles (up to 23 tonnes).</p>
<p>There is appropriate access to water supply.</p>	<p>Hydrants are provided in accordance with the relevant clauses of AS 2419.1:2005.</p>	<p>Complies - Fire hydrants are provided in accordance with the relevant clauses of AS 2419.1:2005. There are reticulated mains pressure fire hydrants located along Tallwoods Drive. The nearest one is located directly at the front of the subject Lot</p>
<p>Firefighting vehicles can access the dwelling and exit the property safely</p>	<p>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</p>	<p>Complies – There is a maximum distance of less than 70m from the road to the proposed dwelling.</p>
<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</p>	<p>Complies - The site is connected to reticulated mains pressure water supply.</p>

<p>Water supplies are located at regular intervals; and the water supply is accessible and reliable for firefighting operations.</p> <p>Flows and pressure are appropriate.</p> <p>The integrity of the water supply is maintained.</p>	<p>where no reticulated water is available.</p> <p>Fire hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1:2005; 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>Fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1:2005.</p> <p>All above-ground water service pipes external to the building are metal, including and up to any taps.</p>	<p>Complies with AS2419.1 2005 and the fire hydrants are located off the road.</p> <p>Complies with AS2419.1 2005.</p> <p>Complies - All above-ground service pipes to the proposed dwelling, including taps, are metal</p>
<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</p>	<p>Complies – The proposed development is to be provided with electricity via underground supply which is clear of trees and branches</p>

	Vegetation Near Power Lines	
<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. Polymer-sheathed flexible gas supply lines are not used; and above-ground gas service pipes are metal, including and up to any outlets</p>	<p>Complies – Any reticulated gas supply and any gas cylinders used shall comply with AS/NZS 1596:2014.</p>
<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>Proposed fences and gates are designed to minimise the spread of bush fire.</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>Fences and gates are constructed in accordance with section 7.6.</p>	<p>Complies - The proposed development has been found to be in the BAL- 29 range as per Table A1.12.5 of PBP and is required to comply with the construction standards outlined in Section 3, 6 & 7 of AS3959-2018 and Section 7.5 of PBP 2019.</p> <p>Complies – Any proposed fencing is recommended to be made of either hardwood or non-combustible material.</p>

Proposed Class 10a buildings are designed to minimise the spread of bush fire.	Class 10a buildings are constructed in accordance with section 8.3.2	N/A
<p>In relation to Landscaping:</p> <p>Landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions</p>	<p>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</p>	<p>Complies – The APZ will be managed as an Inner Protection Area within the boundaries of the subject Lot. Developed land on neighbouring land to the North, South and East and West meet the standards outlined in Section 3.2 and Appendix 4 of PBP 2019 in relation to APZ Standards.</p>

Table 4 – Compliance with Table 7.4a of PBP 2019.

7 Recommendations

- The proposed construction of the dwelling has been assessed as BAL- 29 and is therefore recommended to comply with the construction standards outlined in Sections 3, 6 & 7 of AS3959-2019 and Section 7.5 of PBP 2019.
- All above-ground service pipes to the proposed dwelling, including taps, are recommended to be metal.
- Any reticulated gas supply and any gas cylinders used shall comply with AS/NZS 1596:2014.
- Any proposed fencing is recommended to be made of either hardwood or non-combustible material.
- The entire site is deemed an Inner Protection Area and as such any landscaping gardens and the like should comply with Appendix 4 PBP 2019.
- The occupants develop a Bushfire Emergency Plan, for the proposed dwelling to be able to be prepared for a bushfire event in the vicinity.

It is recommended Mid Coast Council and the NSW Rural Fire Service approve the proposed construction of a dwelling on the subject Lot located at 284 Tallwoods Drive, Tallwoods Village. NSW 2430 in respect to Bushfire Requirements.

8. Conclusion

The proposed development at 284 Tallwoods Drive, Tallwoods Village. NSW 2430 can meet the planning requirements of *Planning for Bushfire Protection* 2019 (NSW RFS 2019) and, are capable of meeting Australian Standard AS3959-2018 and the *Building Code of Australia* in relation to construction (ABCB 2019).

The nearest Bushfire Hazard Vegetation is Grassland Classified Vegetation is located 20m North of the proposed dwelling. The vegetation is mapped as Category 1 Bushfire Hazard Vegetation on the Mid Coast Council LGA Bushfire Prone Land Map however, it should be identified as Category 3 Bushfire Hazard Vegetation. The effective slope under the Grassland Classified Vegetation is Upslope/Flat.

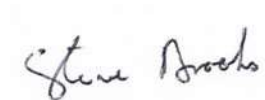
To the North at 41m from the proposed dwelling is Forest Classified Vegetation with an effective slope of 7° Downslope, and 65m to the West is Forest Classified Vegetation with an effective slope of 11° Downslope.

The proposed construction of the dwelling has been found to be in the BAL – 29 range of AS3959-2018 and is therefore required to comply with the construction standards outlined in Section 3, 6 & 7 of AS3959-22019 and Section 7.5 of PBP 2019.

In accordance with the bushfire measures contained with this report and the site-specific assessment as per PBP and AS3959, it is our opinion that combined will provide a satisfactory level of bush fire safety to the property and satisfies the requirements of the RFS and Councils obligations for this area.

The Council can determine the matter as complying with the specifications and requirements Planning for Bushfire Protection and Section 4.14 of the EP&A Act (NSW RFS 2006)

Prepared by Steve Brooks



BPAD - Certification No. 40765

Graduate Diploma Bushfire Planning and Design (UWS)

Graduate Certificate in Fire Investigation (CSU)



FPA Australia Corporate Member

References.

- Australian Building Codes Board (ABCB), 2019, *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.
- NSW Rural Fire Service, 2019, *Planning for Bush Fire Protection*. Sydney
- NSW Rural Fire Service, 2021, website – www.rfs.nsw.gov.au :
- Standards Australia, AS 3959-2018 *Construction in Bushfire Prone Areas* (amended 2001) SAI Global, Melbourne.
- NSW Government E-Planning Spatial Viewer 2021
- NSW Government Six Maps 2021
- Nearmap 2021

Disclaimer

Disclaimer: Quote from Planning for Bushfire Protection, “notwithstanding the precautions adopted, it should always be remembered that bushfires burn under a wide range of conditions and an element of risk, no matter how small always remains”. Although the standard is designed to improve the performance of the building, there can be no guarantee, because of the variable nature of bushfires that any one building will withstand bushfire attack on every occasion.

The opinions and assessment in regard to bushfire development in a Bushfire Prone Area given by TFC are therefore given in good faith.

Appendix 1

Site Photos



Photo 2 – Indicates Tallwoods Drive with Grassland and Forest Classified Vegetations in the background (Steve Brooks 2021)