Strategic Bush Fire Study

Planning Proposal

482 Bushells Ridge Road, Wyee

Reference Number: 230132

Prepared For: Wyee Land No.2 Pty Ltd

7th September 2022



Tel: (02) 9457 6530

PO Box 124 Berowra NSW 2081 ABN 19 057 337 774



www.bushfirehazardsolutions.com.au



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The onus is on the applicant to cross reference this document with any conditions of consent issued by Council or any requirements supplied by the NSW Rural Fire Service following development approval. Building Code & Bushfire Hazard Solutions can review and cross reference these documents however the onus is on the applicant to provide them to us and request this review – Building Code and Bushfire Hazard Solutions Pty. Ltd. is not in a position to track every DA through Council and we rely upon the applicant to undertake this role as project co-ordinator.

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Version Control					
Version	Date	Author	Reviewed by	Details	
1	07/09/2022	Andrew Muirhead	Stuart McMonnies	Final Report	

List of Abbreviations:

APZ	Asset Protection Zone
AS3959	Australian Standard 3959 'Construction of buildings in bushfire-prone areas' – 2018
BAL	Bushfire Attack Level
BPMs	Bushfire Protection Measures
BPLM	Bush Fire Prone Land Map
Council	Lake Macquarie City Council
DA	Development Application
EP&A Act	Environmental Planning and Assessment Act - 1979
FRNSW	Fire & Rescue NSW
IPA	Inner Protection Area
NCC	National Construction Code
NP	National Park
NSP	Neighbourhood Safer Places
OPA	Outer Protection Area
PBP	Planning for Bush Fire Protection – 2019
ROW	Right of Way
RF Act	Rural Fires Act - 1997
RFS	NSW Rural Fire Service
SBFS	Strategic Bush Fire Study
SEPP	State Environmental Planning Policy
SFPP	Special Fire Protection Purpose
SWS	Static Water Supply

Executive Summary

Building Code and Bushfire Hazard Solutions P/L has been commissioned by Wyee Land No 2 Pty Ltd to prepare an independent Bushfire Assessment Report for a planning proposal which will facilitate a future residential development at 482 Bushells Ridge Road, Wyee.

The subject site comprises of one (1) existing allotment (Lot 171 DP 1212974), zoned SP2: Infrastructure.

The Planning Proposal (PP) seeks to rezone the site from its current infrastructure zone to residential land.

The subject site is depicted on Lake Macquarie City Council's Bushfire Prone Land Map as containing the Vegetation Buffer and is therefore considered 'bushfire prone land'.

In relation to this planning proposal Lake Macquarie City Council is required to apply section 9.1(2) of the *Environmental Planning and Assessment Act* 1979. Direction 4.4 Planning for Bushfire Protection identifies matters for consideration for proposals that affect or are in proximity to land mapped as bushfire prone. Under these directions the following objectives apply:

i. to protect life, property and the environment from bush fire, by discouraging the establishment of incompatible land uses in bush fire prone areas; and

ii. to encourage sound management of bush fire prone areas.

A Strategic Bush Fire Study has been undertaken and concluded the proposal is appropriate in the bushfire hazard context.

A key consideration for planning proposals in bushfire prone areas is limiting or excluding incompatible development commensurate with the level of risk. In this regard the subject site is not considered to have a high bushfire risk when considering the previous bushfire history and characteristics of the vegetation.

In addition to the Strategic Bush Fire Study an assessment of the proposed land zoning against the specific Bushfire Protection Measures of PBP has concluded that future Development Applications have the capacity to satisfy the relevant specification and requirements of *Planning for Bush Fire Protection* 2019 (PBP).

It is of our opinion that the proposal provides an appropriate combination of Bushfire Protection Measures (BPMs) in accordance with PBP.

Furthermore we are satisfied that a future residential subdivision, in combination with the bushfire protection measures discussed herein will not result in areas that are difficult to evacuate, create control difficulties during a bushfire or adversely affect other bush fire protection strategies or place existing development at increased risk.

1.0 Introduction

Building Code and Bushfire Hazard Solutions P/L has been commissioned by Wyee Land No 2 Pty Ltd to prepare an independent Bushfire Assessment Report for a planning proposal which will facilitate a future residential development at 482 Bushells Ridge Road, Wyee.

The subject site comprises of one (1) existing allotment (Lot 171 DP 1212974), zoned SP2: Infrastructure.

The Planning Proposal (PP) seeks to rezone the site from its current infrastructure zoning to proposes a future residential land.

The subject site is depicted on Lake Macquarie City Council's Bushfire Prone Land Map as containing the Vegetation Buffer and is therefore considered 'bushfire prone land'.

In relation to this planning proposal Lake Macquarie City Council is required to apply section 9.1(2) of the *Environmental Planning and Assessment Act* 1979. Direction 4.4 Planning for Bushfire Protection identifies matters for consideration for proposals that affect or are in proximity to land mapped as bushfire prone. Under these directions the following objectives apply:

i. to protect life, property and the environment from bush fire, by discouraging the establishment of incompatible land uses in bush fire prone areas; and

ii. to encourage sound management of bush fire prone areas.

The proposal must demonstrate compliance with the s9.1(2) Directions and the relevant specifications and requirements of *Planning for Bush Fire Protection* 2019 (PBP).

The application of PBP requires satisfactory demonstration of the aim and objectives and the specific objectives and bushfire protection measures relevant to the type of development.

In this instance the proposal relates to a planning proposal to facilitate a future residential subdivision and therefore in addition to the aim and objectives detailed in Chapter 1 'Introduction' the proposal must satisfy Chapter 4 'Strategic Planning' of PBP.

The bushfire protection measures detailed in Chapter 5 'Residential and Rural Residential Subdivisions' of PBP have also been considered for the future subdivision applications.

2.0 Purpose of Report

The purpose of this Bushfire Assessment Report is to provide an independent bushfire assessment together with appropriate recommendations for bushfire mitigation measures considered necessary having regard to development within a designated 'bushfire prone' area.

This Bushfire Assessment Report addresses Section 4 'Strategic Planning' of *Planning for Bush Fire Protection* 2019.

3.0 Scope of this Report

The scope of this report is limited to providing a bushfire assessment and recommendations for the subject site (refer to Figure 01). Where reference has been made to the surrounding lands, this report 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 site.

4.0 Aerial Image, BPLM, Zoning & Radcliffe Wyee Master Plan



Figure 01: Aerial view of the subject area Subject site (red outline) 1 kilometre buffer (blue outline)



Figure 02: Extract from Lake Macquarie City Council's Bushfire Prone Land Map



Figure 03: Land zoning of the subject area Subject site (outlined in yellow)



Figure 04: Proposed Zoning Map



Figure 05: Extract of Radcliffe Wyee Masterplan prepared by adw johnson

5.0 Bushfire Assessment

5.01 Preface

Properties considered to be affected by possible bushfire impact are determined from the local Bushfire Prone Land Map as prepared by Council and/or the Rural Fire Service. All development within affected areas is subject to the application of the relevant specifications and requirements of *Planning for Bush Fire Protection* - 2019 (PBP).

PBP formally adopted on the 1st March 2020 provides for the protection of property and life (including fire-fighters and emergency service personnel) from bushfire impact.

In this instance the subject site is depicted on Lake Macquarie City Council's Bushfire Prone Land Map as containing the Vegetation Buffer. The subject site is therefore considered to be 'bushfire prone land'.

When preparing a planning proposal s9.1(2) of the EP&A Act is required to be applied. Direction 4.4 *'Planning for Bushfire Protection'* of the s9.1(2) Direction, applies when a Council prepares a draft LEP that affects, or is in proximity to, land mapped as bushfire prone. Under these directions the following objectives apply:

i. to protect life, property and the environment from bush fire hazards, by discouraging the establishment of incompatible land uses in bush fire prone areas; and

ii. to encourage sound management of bush fire prone areas.

Under direction 4.4 the Commissioner of the NSW RFS must be consulted and any comments taken into account. As part of the consultation process with the NSW RFS, a bush fire assessment is required to be submitted to demonstrate compliance with the s9.1(2) Directions and PBP.

Consideration must be given to limiting or excluding incompatible development in bushfire affected areas commensurate with the level of risk. A key principle to ensure this is that future development is designed and sited capable of complying with PBP.

The NSW Rural Fire Service also encourages the application of zones that limit or exclude inappropriate development in bushfire prone areas where:

- the development area is exposed to a high bush fire risk and should be avoided;
- the development is likely to be difficult to evacuate during a bush fire due to its siting in the landscape, access limitations, fire history and/or size and scale;
- the development will adversely effect other bush fire protection strategies or place existing development at increased risk;
- the development is within an area of high bush fire risk where density of existing development may cause evacuation issues for both existing and new occupants; and
- the development has environmental constraints to the area which cannot be overcome.

We provide the following assessment in consideration of the above and *Planning for Bush Fire Protection* 2019 to highlight the suitability of the site for residential development and the relevant Bushfire Protection Measures.

5.02 Strategic Bush Fire Study

Planning proposals which relate to bushfire prone properties require the preparation of a Strategic Bush Fire Study. The Strategic Bush Fire Study (SBFS) provides opportunity to assess the broader landscape and ultimately assesses whether the new zones and proceeding development is appropriate in the bushfire hazard context.

The broad principles which apply to the SBFS analysis are:

- ensuring land is suitable for development in the context of bush fire risk;
- ensuring new development on BFPL will comply with PBP;
- minimising reliance on performance-based solutions;
- providing adequate infrastructure associated with emergency evacuation and firefighting operations; and
- facilitating appropriate ongoing land management practices.

Once the strategic assessment has been addressed in the SBFS, an assessment of whether the future land uses can comply with the aim and objectives and specific bushfire protection measures of PBP must then be carried out. The assessment against PBP is addressed in section 5.03 of this report.

The following assessment details the components in Table 4.2.1 of PBP which must be addressed in a SBFS.

Bushfire Landscape Assessment

The Bushfire Landscape Assessment component considers the likelihood of a bushfire, its potential severity and intensity and the potential impact on life and property in the context of the broader surrounding landscape.

Location

The subject site comprises of an existing allotment (zoned 'SP2: Infrastructure') located at 482 Bushells Ridge Road, Wyee and legally identified as Lot 2014 DP 1275106.

The subject site is located within Lake Macquarie City Council's local government area.

The site is within the Greater Hunter Fire Weather District and is captured by the Central Coast Bush Fire Risk Management Plan 2020.

The site has access to Cudmore Road to the south and abuts residential land to the east and an environmental corridor to the northwest.

Vegetation

The vegetation structure, connectivity and attributes are fundamental contributors to bushfire behaviour and its movement through the landscape.

As part of this assessment we have considered the potential bushfire runs (catchments) that currently exist into the site, as well as the potential fire behaviour and impacts following the delivery of the Radcliffe Wyee Masterplan.

Consideration has also been given to the approved residential developments (DA 1286-2015 and DA2243-2017) which are both under construction to the northwest and south of the subject site.

Historically the primary use of the site has been for a water recycling facility. These practices has resulted in the area being managed. We have all land within the site will either be developed, maintained to the standard of an Asset Protection Zone or considered Low Threat Vegetation in accordance with A1.10 of PBP.



Figure 06: Extract of the LM DCP

To assess the potential fire runs into the site we have considered all existing vegetation within 1 kilometre and potential fire behaviour and impacts following the delivery of the Radcliffe Wyee Masterplan and approved residential developments (Figure 06).

The most significant catchments for bushfire were identified to be:

• North, east and west within the adjacent environmental corridors.

A Vegetation Management Plan has been prepared by Anderson Environmental & Planning (dated November 2017) to guide the future management of the environmental corridors.

Consideration has been given to the vegetation that currently presents a bushfire threat as well that which may pose a bushfire threat in the future in accordance with the aforementioned VMP.

The vegetation posing a potential bushfire hazard to the future residential allotments has been identified as being located to the north, east and west within Lot 5000 (being C2: Environmental Conservation zoned land).

The vegetation posing a hazard within the 140 metre assessment area to the north, east and west is identified in the VMP as being Freshwater Wetland Complex, Riparian Melaleuca Swamp Woodland, Wyong Paperbark Swamp Forest and Wyong Paperbark Swamp Forest – Melaleuca Scrub Variant. The formation posing the highest hazard was subsequently determined to be Forested Wetlands.

For the purpose of assessment under Planning for Bush Fire Protection 2019 the vegetation posing a hazard to the north, east and west was determined to be Forested Wetlands (Coastal Swamp Forest).



Figure 07: Extract from the Vegetation Management Plan prepared by Anderson Environmental & Planning (dated November 2017)

Slope and Topography

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.

The slope that would **most significantly** influence bushfire impact was determined using 1 metre LiDar contour mapping of the subject area.



Figure 08: Slope within subject site (red outline) and investigation area (blue outline)



Figure 09: Extract from ELVIS – Geoscience Australia (1 metre contours)

Fire Weather

All development which attracts an Asset Protection Zone under PBP requires the identification of the relevant Fire Danger Index (FDI). The FDI required to be used for development assessment purposes is based on the local government boundaries, being Lake Macquarie City Council in this instance.

In accordance with the NSW Rural Fire Service publication 'NSW Local Government Areas FDI' (2017) Lake Macquarie City Council is located within the Greater Hunter Fire Weather District which attracts a Fire Danger Index (FDI) of 100 for bushfire planning purposes.

Previous Bushfire History

There are areas within NSW that have significant fire history and are recognised as known fire paths. In a planning context it is important to identify these locations and ensure incompatible development is not proposed.

In this instance the closest wildfire is greater than 1 km to the south of the site in 2006-07 (source NPWS Fire History dataset).

Severe fire behaviour in this part of NSW is typically heavily influenced by hot dry northwest / westerly winds bought from inland Australia. These winds are the primary influence for the direction of a fire, generally pushing fires in a south-easterly / easterly direction. Southerly changes which are typically associated with strong winds that push fires in a northerly direction are an exception to this.

In this instance there have been no recorded wildfires to the northwest or west of the site within the 1km assessment area.

The site is therefore <u>not</u> considered to be within a known fire path.



Figure 10: Aerial view of the subject area Subject site (red outline) and 1km buffer (blue outline)

Potential Fire Behaviour

In this instance it has been identified that the largest fire catchments to the subject site are from the north, east and west within the adjacent environmental corridors.

In applying the parameters described in this section and the accepted assessment methodology described in PBP bushfire design modelling was undertaken to determine the intensity of three potential fires. These being:

- 1. A bushfire burning from the northeast through the vegetated corridor associated with C2 zoned land. While the vegetation to this aspect is fragmented it has the greatest fire run towards the subject property; and
- 2. A bushfire burning from the southwest through vegetated allotments toward the subject site. Noting there is a large disturbed area immediately adjacent the subject site (including neighbouring developments).



Figure 11: Aerial view of the subject area showing assessed fire runs Subject site (red outline) and 1 kilometer buffer (blue outline)



Figure 12: Fire intensity mapping of Scenario 1 (northeast) Subject site (red outline) and 1 kilometer buffer (blue outline)



Figure 13: Fire intensity mapping of Scenario 2 (southwest) Subject site (red outline) and 1 kilometer buffer (blue outline)

Access & Suppression

Access for attending fire services to undertake early suppression is a key factor in whether a fire has the opportunity to develop into a quasi-steady state at which point the opportunity to control / extinguish the fire becomes far more challenging.

Where good access is available it provides opportunity to control / extinguish a fire in its growth phase before developing further and consequently becoming more difficult to conduct direct attacks.

In this particular instance access will be available to the bushfire hazards that are immediately adjacent the subject site via the local road network. The subject property is large enough to accommodate a perimeter road or another compliance option to provide a defendable space and access around the future residential allotments.

Access to the hazard in the broader landscape is available via existing public roads and classified fire trails. Refer to Figure 14 for the extent of existing roads and classified fire trails in the subject area (source Transport NSW).

Classified fire trails must meet certain standards to be registered as such. This ensures that the NSW RFS and other fire agencies have confidence to deploy resources to a location, with confidence that they will be able to efficiently access and respond to an incident.

In consideration of the comprehensive access and its exposure to the public the identification and subsequent extinguishment of a bushfire within the site is considered reasonable.



Figure 14: Aerial view of the subject area overlayed with roads, trails and classified fire trails (source Transport NSW)

Land Use Assessment

The Land Use Assessment identifies the most appropriate locations for proposed land uses. In a bushfire planning context the various land uses present different risk profiles and as such are assessed differently under Planning for Bush Fire Protection.

In this instance the proposal does not include a broad masterplan but rather a specific 'spot' rezoning to facilitate a future residential development. The proposal provides for low density residential.

Special Fire Protection Purpose (SFPP):

SFPP development is one which is occupied by people who are considered to be at-risk members of the community. In a bushfire event, these occupants may be more susceptible to the impacts of bush fire.

SFPP development consequently attracts the highest Bushfire Protection Measures commensurate to the risk profile. Most notably SFPP development, attracts large minimum required Asset Protection Zones, which in instances can preclude future development.

Development that is listed in section 100B of the *Rural Fires Act* 1997 as SFPP are:

- (a) a school,
- (b) a child care centre,
- (c) a hospital (including a hospital for the mentally ill or mentally disordered),
- (d) a hotel, motel or other tourist accommodation,
- (e) a building wholly or principally used as a home or other establishment for mentally incapacitated persons,
- (f) seniors housing within the meaning of State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004,
- (g) a group home within the meaning of State Environmental Planning Policy No 9—Group Homes,
- (h) a retirement village,
- (i) any other purpose prescribed by the regulations.

Section 47 of the Rural Fires Regulation 2022 also lists additional SFPP development which are:

- (a) a manufactured home estate (within the meaning of State Environmental Planning Policy No 36—Manufactured Home Estates), comprising two or more caravans or manufactured homes, used for the purpose of casual or permanent accommodation (but not tourist accommodation),
- (b) a sheltered workshop, or other workplace, established solely for the purpose of employing persons with disabilities,
- (c) a respite care centre, or similar centre, that accommodates persons with a physical or mental disability or provides respite for carers of such persons,
- (d) student or staff accommodation associated with a school, university or other educational establishment,
- (e) a community bush fire refuge approved by the Commissioner

Buildings used for public assembly which have a floor area of greater than 500m² are also treated technically as SFPP development due to the evacuation challenges presented by large numbers of occupants.

In this instance the planning proposal seeks residential land zones and subsequently does not directly seek approval to facilitate future SFPP development.

It is acknowledged that the residential zone can permit, with consent, some SFPP uses. Where future SFPP development is proposed these will be the subject to independent Development Applications which would be required to demonstrate compliance with the relevant specifications and requirements of PBP at that time.

Residential:

Residential development (increased density, subdivision, townhouses etc) presents the next highest risk profile and accordingly also attracts minimum required Asset Protection Zones. In this regard a Residential Asset Protection Zone overlay (attachment 01) has been prepared to depict the minimum required for residential development.

All land can accommodate a building footprint outside the minimum required APZs for residential development.

Land Use:

The subject site has the ability to locate the residential allotments in areas which achieve or exceed the minimum required Asset Protection Zones.

In consideration of the landscape study and risk profiles we are of the opinion the proposed land uses are appropriate.

Access and Egress

It is important to assess the capacity of both the existing and approved road networks both within and external to the investigation area to deal with evacuating residents and responding emergency services.

The key evacuation route from the site is to the north via the adjacent approved residential subdivision to an existing township.

The existing road network has connection to Hue Hue Road. From Hue Hue Road residents / occupants can travel west toward the M1 or east towards the Wyee township.

In consideration of the modest population increase associated with the proposal the existing road network is considered adequate.

Emergency Services

In some circumstances the scale of a planning proposal warrants a need to include provisions for a new fire station.

The site is located within a NSW Rural Fire Service area, with stations to the northeast located within 1 - 2 km of the subject site.

In consideration of the relatively modest population increase relating to this planning proposal the existing fire service coverage is considered acceptable.

Infrastructure

An assessment of the issues associated with infrastructure and utilities must be undertaken. This assessment is to include the ability of the reticulated water system to deal with a major bushfire event in terms of pressures, flows and spacing of hydrants.

There are hydrants available along the existing public roads within the area. The capabilities of the broader hydrant network are the responsibility of Hunter Water.

The sizing, spacing and pressures of any future hydrant system must comply with AS2419.1-2021.

It is understood that the proposal will not directly impact any existing electrical or gas infrastructure.

5.03 Planning for Bush Fire Protection

As the strategic issues have been satisfactorily addressed in the SBFS, an assessment of compliance with PBP is required. This section addresses the future developments capacity to comply with the relevant specifications and requirements of PBP.

The application of PBP requires satisfactory demonstration of the aim and objectives and the specific objectives and bushfire protection measures relevant to the type of development. The bushfire protection measures detailed in Chapter 5 of PBP have been considered for the future residential development.

The following table details the aim and objectives of *Planning for Bush Fire Protection 2019* and the proposals ability to comply.

Aim / Objective	Comment
The aim of PBP is to provide for the protection of human life and minimise impacts on property from the threat of bush fire, while having due regard to development potential, site characteristics and protection of the environment.	With the inclusion of the recommendations made herein it is of our opinion that the aim of PBP has been satisfied.
(i) afford buildings and their occupants protection from exposure to a bush fire;	The proposed land use can support the minimum required Asset Protection Zones for residential development.
	In conjunction with the application of the relevant Bushfire Attack Level under Australian Standard 3959 'Construction of buildings in bushfire-prone areas' future buildings and their occupants will be afforded protection from exposure to a bushfire.
(ii) provide for a defendable space to be located around buildings;	The vegetation which presents the bushfire threat, are generally framed by roads and residential development.
	These roads provide a defendable space for fire services and logical fire-fighting platforms.
(iii) provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;	The application of the minimum required APZs in conjunction with the relevant Bushfire Attack Level for the future buildings will prevent the likely fire spread to buildings.

Aim / Objective	Comment
(iv) ensure that appropriate operational access and egress for emergency service personnel and occupants is available;	Comprehensive access is available to the bushfire hazards for attending fire services via the surrounding road network.
(v) provide for ongoing management and maintenance of bush fire protection measures, (BPMs); and	The specific bushfire protection measures of the future developments will be addressed within the submission documents of those developments.
(vi) ensure that utility services are adequate to meet the needs of firefighters.	 The capabilities of the broader hydrant network are the responsibility of Hunter Water. The sizing, spacing and pressures of any future hydrant system within the site must comply with AS2419.1-2021. These future hydrants are considered to be the logical water supply for fire services undertaking hazard reduction and / or fire suppression activities.

It is therefore of our opinion that the proposal can satisfactorily comply with the aim and objectives of *Planning for Bush Fire Protection 2019*.

Asset Protection Zones

Asset Protection Zones (APZs) for residential subdivision are determined from Table A1.12.2 of PBP or bushfire design modelling achieving a radiant heat impact of no more than 29 kW/m² at a building footprint.

The minimum required Asset Protection Zones for the future residential development were determined from Table A1.12.2 of PBP to be 29 metres from the identified Forest (Coastal Swamp Forest) hazard to the north and east.

These minimum required APZs for the residential subdivision component are depicted on Attachment 01.

The available APZs consist of the land within the subject site.

The subject site has the capacity to comply with the minimum required APZs as detailed in PBP.

Fire Fighting Water Supply

There are hydrants available along Cudmore Crescent and existing public roads within the local area.

The subject site has the capacity to comply with the Water Supply requirements as detailed in sections 5.3.3 of PBP through the existing water supply and reticulated water system.

Access

Planning for Bush Fire Protection addresses design considerations for internal roads (public roads) for properties determined to be bushfire prone. In a bush fire prone area, the purpose of the road system is to:

- provide firefighters with access to structures, allowing more efficient use of firefighting resources;
- provide evacuation routes for firefighters and the public; and
- provide access to areas of bush fire hazard for firefighting and hazard mitigation purposes.

The site will have street access to an existing residential development to the south via Cudmore Crescent.

The existing road network has connection to Hue Hue Road. From Hue Hue Road residents / occupants can travel west toward the M1 or east towards the Wyee township.

Planning for Bush Fire Protection addresses design considerations for internal roads (public roads) for properties determined to be bushfire prone.

The subject property is large enough to provide a perimeter road along the hazard interface or another compliance option to the existing road network.

The Radcliffe Wyee Masterplan includes access to the identified bushfire hazards and utilises through roads throughout the design, satisfying the preferred design option under PBP.

We are satisfied that future access has the capacity to comply with the requirements for Access under section 5.3.2 of PBP.

6.0 Conclusion

Building Code and Bushfire Hazard Solution P/L has been commissioned to prepare an independent Bushfire Assessment Report for a planning proposal which will facilitate a future residential development at 482 Bushells Ridge Road, Wyee.

The subject site is currently zoned 'SP2: Infrastructure' and is located within Lake Macquarie City Council's local government area.

The planning proposal (PP) seeks to rezone the site from its current environmental zone to residential land.

In this instance the subject site is depicted on Lake Macquarie City Council's Bushfire Prone Land Map as containing the Vegetation Buffer. The subject site is therefore considered 'bushfire prone'.

We are satisfied that the subject site has the capacity to comply with the relevant specifications and requirements of *Planning for Bush Fire Protection* 2019.

Furthermore, we are satisfied that the proposal, in combination with the bushfire protection measures discussed herein will not result in areas that are difficult to evacuate, create control difficulties during a bushfire or adversely affect other bush fire protection strategies or place existing development at increased risk.

We are therefore in support of the Planning Proposal.

Should you have any enquiries regarding this project please contact me at our office.

Prepared 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



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

Ton

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



7.0 Annexure 01

List of Referenced Documents

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Rural Fire Service NSW (2005). Standards for Asset Protection Zones

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Standards Australia (2014). AS/NZS 1596 The storage and handling of LP Gas

Acknowledgements to:

Geoscience Australia Nearmap Street-directory.com.au

Attachments

Attachment 01:

Residential Asset Protection Zone Overlay





