Appendix H – Bushfire Assessment



Bushfire Review

45 Mulloway Road, Chain Valley Bay

Prepared for Corval Partners Pty Ltd

Project: 18041

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1.0 INTRODUCTION

1.1Purpose

This report has been prepared to examine the subject land in relation to bushfire hazards and protection measures as they relate to a proposal to rezone the land to allow development of the land for the purposes of a manufactured home estate.

The report will examine key issues that will influence bushfire behaviour in the area, as well as matters that will influence the ability to provide passive and active bushfire protection measures for the area.

As part of the planning proposal, consultation will be undertaken with the NSW Rural Fire Service and this document provides information in relation to compliance with the provisions of relevant guidelines of the NSW Rural Fire Service.

Whilst *Planning for Bush Fire Protection 2006* is the current version of the document for legislation, its replacement *Planning for Bush Fire Protection 2018* has been released and adoption is imminent. This assessment has utilised *Planning for Bush Fire Protection 2018* as its basis.

1.2 Site Description

1.2.1 – Site Details

The following details identify the subject site:

Real Property Description	Lot 5 DP 1228880	
Address	45 Mulloway Road, Chain Valley Bay	
Site Area	10.61 hectares	
Zoning Wyong LEP 2013	E3 – Environmental Management	

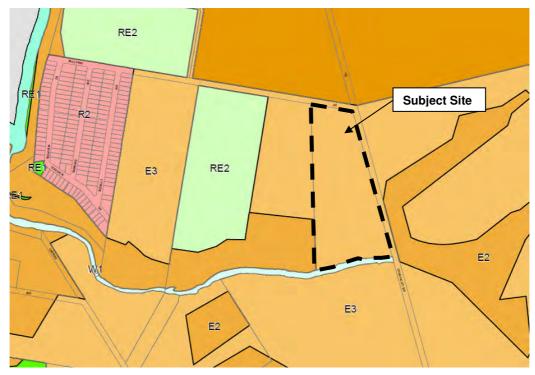


Figure 1: Map of Site (Zoning)





Figure 2: Map of Site (Satellite)

[Source: LPMA SIX Maps]

1.2.2 – Site Context

The site is located at the eastern end of Mulloway Road at the intersection with Chain Valley Bay Road. The site appears to contain at least two (2) dwellings, as well as an automotive repair business and other commercial/industrial uses (extractive materials stockpiles and/or earthmoving depot).

Land to the north, east and west is dominated by native vegetation within conservation reserves (north) and private property.

Land immediately adjoining to the west along Mulloway Road has been developed as a land lease community (Valhalla caravan park) and land further west is part of the Chain Valley Bay Urban area. Another land lease community (Teralgin Lakeshore Home Village) also exists approximately 450 metres west of the site on the northern side of Mulloway Road.

Vehicular access to the site is available from both Mulloway Road and Chain Valley Bay Road.

1.2.3 - Bushfire Prone Land

The subject land is identified as Bushfire Prone Land as described in Section 4.14 of the *Environmental Planning and Assessment Act 1979*. The area is mapped as containing areas of Category 1 vegetation along the southern parts of the site, and buffer areas to category 1 vegetation.



Figure 3: Bushfire Prone Land Map)

[Source: NSW Planning Portal]

2.0 CONCEPT PROPOSAL

A planning proposal is being lodged with Central Coast Council to facilitate development of a manufactured home estate on the land. The proposal would see parts of the land zoned RE2 – Private Recreation which would permit the development of a caravan park on the land. The provisions of SEPP 36 would then permit development of a manufactured home estate on the land.

The planning proposal has also identified that the vegetation along the southern part of the site (along Karignan Creek) is Endangered Ecological Community and will be zoned E2 – Environmental Conservation.

When a development application is submitted for the land, a more detailed bushfire assessment will be submitted identifying specific provisions for development on the land. Use of the proposed land as a manufactured home estate is identified as an Additional Special Fire Protection Purpose under clause 46 of the *Rural Fires Regulation 2013*. As such any development application lodged for this use will be integrated development and would seek a concurrent approval from the NSW Rural Fire Service for a Bushfire Safety Authority.

3.0 EXISTING CONDITIONS AFFECTING BUSHFIRE PROTECTION

The following provides information in relation to the existing environmental conditions which will affect bushfire hazards and risk.

Vegetation

The vegetation over the majority of the land is generally of low threat and is comprised of grasslands and scattered trees. There is a strip of forest vegetation along the southern part of the site which will be conserved that is contiguous with other forest vegetation on adjoining lands. There is also a narrow band of vegetation along the western boundary; however, this is a very narrow row of trees disconnected with other areas of vegetation and is considered low threat vegetation.

Vegetation on adjoining lands to the north, east and south is comprised of forest vegetation. Vegetation on the adjoining land to the west is managed land for the majority with an area of conserved forest vegetation in the southern parts of the site.

Slope

The slope of the land within the site falls from the north to the south (from Mulloway Road to Karignan Creek) with a slope of approximately 2°. The slope of adjoining land to the east and west is similar. The land on the opposite side of the creek starts to rise and is upslope.

The effective slopes for the purposes of determining Asset Protection Zones, etc., for a future manufactured home estate would be:

Direction	Effective Slope
North	Flat/Upslope
East	Flat/Upslope (cross slope)
South	0-5º Downslope
West	Flat/Upslope (cross slope)

<u>Access</u>

A Manufactured Home estate on the subject land would obtain access from Chain Valley Bay Road.

Chain Valley Bay Road passes along the eastern boundary of the site and provides a large capacity connection to the Pacific Highway at its southern end and also connects to other residential areas to the north. There is also a National Parks road connection (Link Road) between Chain Valley Bay Road to Kangara Drive, offering alternate access.

The site also has connects to Mulloway Road which connects with the remainder of the residential area in this part of Chain Valley Bay. Mulloway Road connects with open areas at the lake front and other residential streets but does not provide any connection to other egress routes.

Services

At present, the land is not connected to urban services; however, future development of the land will only be possible through the extension of urban services, such as reticulated water/sewer, electricity and telecommunications which are available in the area.

4.0 BUSHFIRE PROTECTION MEASURES REQUIRED

<u>Asset Protection Zones</u>

The provision of an Asset Protection Zone for further development will be necessary to provide a fuel-free break between bushfire prone vegetation and development as well as defendable space for fire fighting operations.

In relation to suitable Asset Protection Zones for the provisions of *Planning for Bush Fire Protection 2018* provide that, where the installation of homes can be required to meet AS 3959-2009 or NASH standards, the APZ can be based on residential requirements to meet 29kW/m². The construction of homes to meet AS3959 is possible and it is common practice for BAL construction requirements to be incorporated into consents. In additions such construction can be included in the estate approval and checked as part of the completion notice under the *Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation 2005.*

Based on the acceptable solutions (Table A1.12.2), the following APZs would apply to the land:

Direction	Vegetation	Slope	APZ required
North	Forest	Flat/Upslope	24m
East	Forest	Flat/Upslope	24m
South	Forest	0-5 ⁰ Downslope	29m
West	Managed	Flat/Upslope	N/A

The Asset Protection Zones to the north and east can be partly contained within the road reserves of Mulloway Road and Chain Valley Bay Road. The extent of required Asset Protection Zones within the site is illustrated in the plan below.



Figure 4: Asset Protection Zones

[Base Map Source: LPMA SIX Maps]

Access

As discussed, access is available from both Mulloway Road and Chain Valley Bay Road to the site. Both roads are wide two-way sealed roads with a large capacity and are unlikely to be blocked in a bushfire emergency. Chain Valley Bay Road connects with the Pacific Highway at its southern end and also connects to Kangara Drive to the east via Link Road within the Lake Macquarie Conservation area.

Internally, the development design would incorporate the following features:

- Perimeter road to the southern edge of the development between the forest vegetation and any manufactured home sites.
- Circulating road system to allow fire fighting vehicles to turn within the development.
- Road design to accommodate heavy vehicles, including rural fire service vehicles.
- Vehicular entry point from Chain Valley Bay Road.

The access arrangements would be considered suitable to meet the requirements of *Planning for Bush Fire Protection 2018*.

Construction

The Asset Protection Zones would be sufficient to restrict exposure of any homes on sites to no greater than 29kW/m² and construction requirements would vary between BAL-29 and BAL-LOW, depending on location. A development application will identify required BALs for sites within the future manufactured home estate and these would be incorporated in consent conditions, etc.

Services

As part of the development of the land, urban services will be extended and augmented to serve the subject land. This will include the provision of reticulated water and sewer. It is a requirement for any manufactured home estate that a hydrant system be provided and the future manufactured home estate on the land will be required to provide a ring main and hydrant system which will include provision of hydrants so that any site is within the required 90m radius of any hydrant. This provision of water supply for fire fighting purposes meets the requirements of *Planning for Bush Fire Protection 2018*.

Electricity will be supplied to the sites and will be undergrounded throughout the site. No reticulated gas is available to the site and any bottled gas installation will need to be undertaken as per the requirements in *Planning for Bush Fire Protection 2018*.

5.0 CONCLUSION

A draft planning proposal has been prepared for land at 45 Mulloway Road, Chain Valley Bay which would have the effect of permitting a manufactured home estate on the land. The subject land is mapped as bushfire prone and consultation with the NSW Rural Fire Service is required as part of the planning proposal process.

The report has shown that development of the land can be undertaken in a manner consistent with *Planning for Bush Fire Protection 2018.*