

# Bushfire Assessment Report

***Proposed:***  
**Alterations and  
Additions**

***At:***  
**Grand Saddles Lodge /  
231 Pacific Highway,  
Mount White**

*Reference Number: 221405*

**19 October 2022**



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Version Control				
Version	Date	Author	Reviewed by	Details
1	27/09/2022	Stuart McMonnies	Andrew Muirhead	Draft Report
2	19/10/2022	Stuart McMonnies		Final Report

## List of Abbreviations:

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APZ	Asset Protection Zone
AS3959	Australian Standard 3959 – 2018 as amended
BAL	Bushfire Attack Level
BPMs	Bushfire Protection Measures
BPLM	Bushfire Prone Land Map
Council	Central Coast Council
DA	Development Application
ELVIS	Elevation and Depth Foundation Spatial Data
EP&A Act	<i>Environmental Planning and Assessment Act - 1979</i>
ESD	Ecologically Sustainable Development
FRNSW	Fire and Rescue NSW
IPA	Inner Protection Area
NASH	National Association of Steel-framed Housing
NCC	National Construction Code
NP	National Park
NSP	Neighbourhood Safer Place
OPA	Outer Protection Area
PBP	<i>Planning for Bush Fire Protection – November 2019</i>
ROW	Right of Way
RF Act	<i>Rural Fires Act - 1997</i>
RFS	NSW Rural Fire Service
SEPP	State Environmental Planning Policy
SFPP	Special Fire Protection Purpose
SWS	Static Water Supply

## Executive Summary:

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Building Code and Bushfire Hazard Solution P/L has been commissioned by White + Dickson Architects to provide an independent Bushfire Assessment Report to accompany a Development Application (DA) which seeks approval for a development at Grand Saddles Lodge, Mount White (231 Pacific Highway, Mount White).

The approved (DA/62053/2021) Hawkesbury Lodge comprises of a purpose-built new dwelling house with four (4) boutique-style bed and breakfast suites, and associated dining, lounge and bar areas.

The approved dwelling house contains four (4) bedrooms and a rumpus room in the eastern-most pavilion and four (4) bed and breakfast suites located in the central pavilion, each with separate bathroom and seating areas. The western-most pavilions contain a foyer, kitchen, dining, lounge and bar areas associated with the dwelling and bed and breakfast suites, and a study and common bathroom.

The NSW Rural Fire Service issued General Terms of Approval, under Division 4.8 of the *Environmental Planning and Assessment Act 1979*, and a Bush Fire Safety Authority, under section 100B of the *Rural Fires Act 1997* for the approved Hawkesbury Lodge development (RFS ref: DA20210705002767-Original-1, dated 23 December 2021).

The development proposal seeks consent to expand the approved Hawkesbury Lodge to include the following additional components:

- 20 single bedroom accommodation suites;
- restaurant and bar;
- day spa;
- ancillary yoga shala, reflection pond and swimming pool (accommodation guest use only);
- machinery/ storage shed
- carparking for 58 vehicles; and
- perimeter fire trail.

The approved Hawkesbury Lodge building will also be modified to remove the accommodation suites and exclusively used for the restaurant and bar and day spa.

Central Coast Council's Bushfire Prone Land Map identifies the subject property as containing designated Category 1 Vegetation and the Vegetation Buffer therefore the subject site is considered 'bushfire prone'.

Tourist accommodation is listed as Special Fire Protection Purpose (SFPP) under section 100b (6 (d)) of the *Rural Fires Act 1997*. The development must obtain a Bush Fire Safety Authority from the Commissioner of the NSW Rural Fire Service (RFS).

In this instance the proposed accommodation suites meet or exceed the minimum required APZs for new SFPP development.

The proposed buildings will be constructed to BAL 12.5, being the relevant Bushfire Attack Level under Australian Standard 3959 'Construction of building in bushfire-prone areas' 2018.

In our opinion, the proposal satisfies the relevant specifications and requirements of *Planning for Bush Fire Protection 2019*.

## 1.0 Introduction

Building Code and Bushfire Hazard Solution P/L has been commissioned by White + Dickson Architects to provide an independent Bushfire Assessment Report to accompany a Development Application (DA) which seeks approval for a development at Grand Saddles Lodge, Mount White (231 Pacific Highway, Mount White).

The subject property has street frontage to Pacific Highway to the south and Ashbrookes Road to the east and abuts a neighbouring rural-residential allotment to the north and Calverts Creek to the west.

Central Coast Council’s Bushfire Prone Land Map identifies the subject property as containing designated Category 1 Vegetation and the Vegetation Buffer therefore the subject site is considered ‘bushfire prone’.

Tourist accommodation is listed as Special Fire Protection Purpose (SFPP) under section 100b (6 (d)) of the *Rural Fires Act 1997*.

This Bushfire Assessment Report has been prepared to support a Development Application to Central Coast Council.

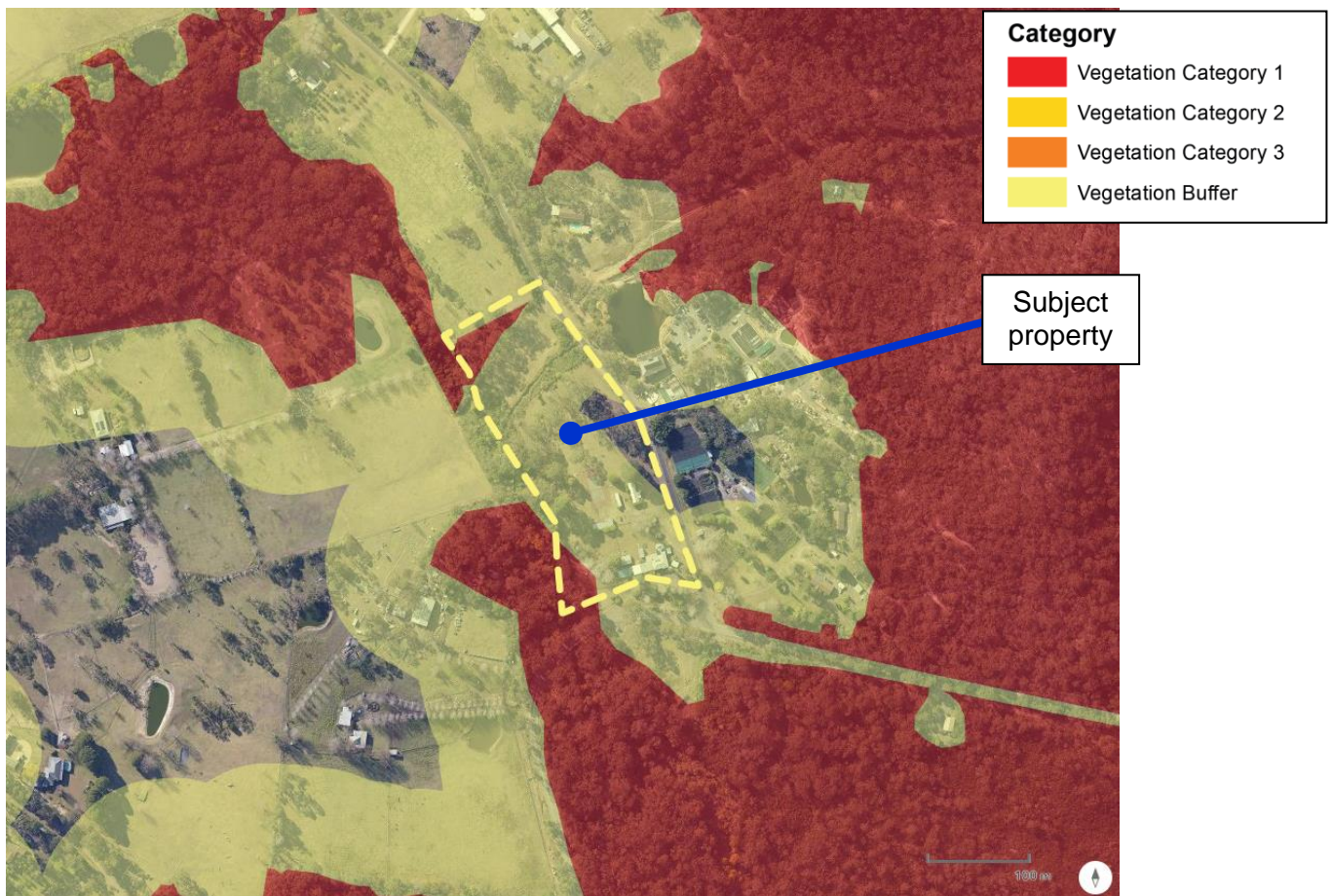


Figure 01: Extract from Central Coast Council’s Bushfire Prone Land Map (NSW eplanning portal)

## 2.0 Legislative Requirements

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The subject site is designated as Bushfire Prone Land (Figure 01).

The subject development relates to a listed Special Fire Protection Purpose (SFPP) development which is located on bushfire prone land and is therefore classified as integrated development under section 4.46 of the *Environmental Planning and Assessment Act* 1979. The development is captured under section 100B of the *Rural Fires Act* 1997 and must obtain a Bush Fire Safety Authority from the Commissioner of the NSW Rural Fire Service (RFS).

In accordance with the submission requirements for a Bush Fire Safety Authority detailed in clause 45 of the *Rural Fires Regulation 2022* an assessment of the extent to which the proposed development conforms with or deviates from *Planning for Bush Fire Protection* (PBP) is required.

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 SFPP development and therefore in addition to the aim and objectives detailed in Chapter 1 'Introduction' the proposal must satisfy the specific objectives and bushfire protection measures detailed in Chapter 6 'Special Fire Protection Purpose Developments' of PBP.

## 3.0 Purpose of Report

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The purpose of this Bushfire Assessment Report is to provide White + Dickson Architects, the Rural Fire Service and Council with an independent bushfire assessment together with appropriate recommendations for both new building construction and bushfire mitigation measures considered necessary having regard to construction within a designated 'bushfire prone' area.

The recommendations contained within this report may assist in forming the basis of any specific construction conditions and/or bushfire mitigation measures that Council and/or the NSW Rural Fire Service may elect to place within any consent conditions issued for the subject Development Application.

## 4.0 Scope of this Report

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The scope of this report is limited to providing a bushfire assessment and recommendations for the subject property. 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 property.

## 5.0 Compliance Tables & Notes

The following table sets out the projects compliance with *Planning for Bush Fire Protection – 2019*.

	North	East	South	West
<b>Vegetation Structure</b>	Managed Land / Approved APZ	Managed Land	Forest	Remnant
<b>Slope</b>	N/A	N/A	5 - 10 degrees down	0 - 5 degrees down
<b>Minimum Required APZ setback</b>	N/A	N/A	93 metres	47 metres
<b>Proposed Asset Protection Zone</b>	N/A	N/A	>96 metres	47 metres
<b>Bushfire Attack Level</b>	BAL Low	BAL Low	BAL 12.5	BAL 12.5

Compliance Summary of Bushfire Protection Measures			
Bushfire Protection Measure	Acceptable Solution	Performance Solution	Report Section
Asset Protection Zones	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.03
Construction Standard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.03
Access	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.03
Water Supply	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.03
Gas and Electrical Supplies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.03



## 6.0 Aerial view of the subject allotment



Figure 02: Aerial view of the subject area. C/- Nearmap – June 2022  
Subject site (thick red outline), proposed building footprints (yellow shade), approved building footprint (blue shade) and 140m assessment buffer (blue dotted line)

## 7.0 Site Assessment

A representative of Building Code & Bushfire Hazard Solutions has completed a site inspection of the subject site and surrounding area on 7 July 2022.

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

- Aerial imagery of the subject area (NSW Spatial Services & Nearmap);
- 1 metre contour mapping of the subject area (Elevation and Depth Foundation Spatial Data – Geoscience Australia)
- NSW Planning Portal Spatial Viewer
- Vegetation mapping (NSW Vegetation & Central Coast Council)
- NSW Bush Fire Prone Land (NSW Rural Fire Service)
- Bushfire Assessment Report (Conacher Consulting, 2021)
- Bush Fire Safety Authority (NSW Rural Fire Service, 2021)

### 7.01 Location

The subject development is known as Grand Saddles Lodge and is located at 231 Pacific Highway, Mount White.

The site comprises of one (1) existing allotment zoned 'RU1: Primary Production' and is legally identified as Lot 1 DP 207158.

The site is within Central Coast Council's local government area.

The subject property has street frontage to Pacific Highway to the south and Ashbrookes Road to the east and abuts a neighbouring rural-residential allotment to the north and Calverts Creek to the west.

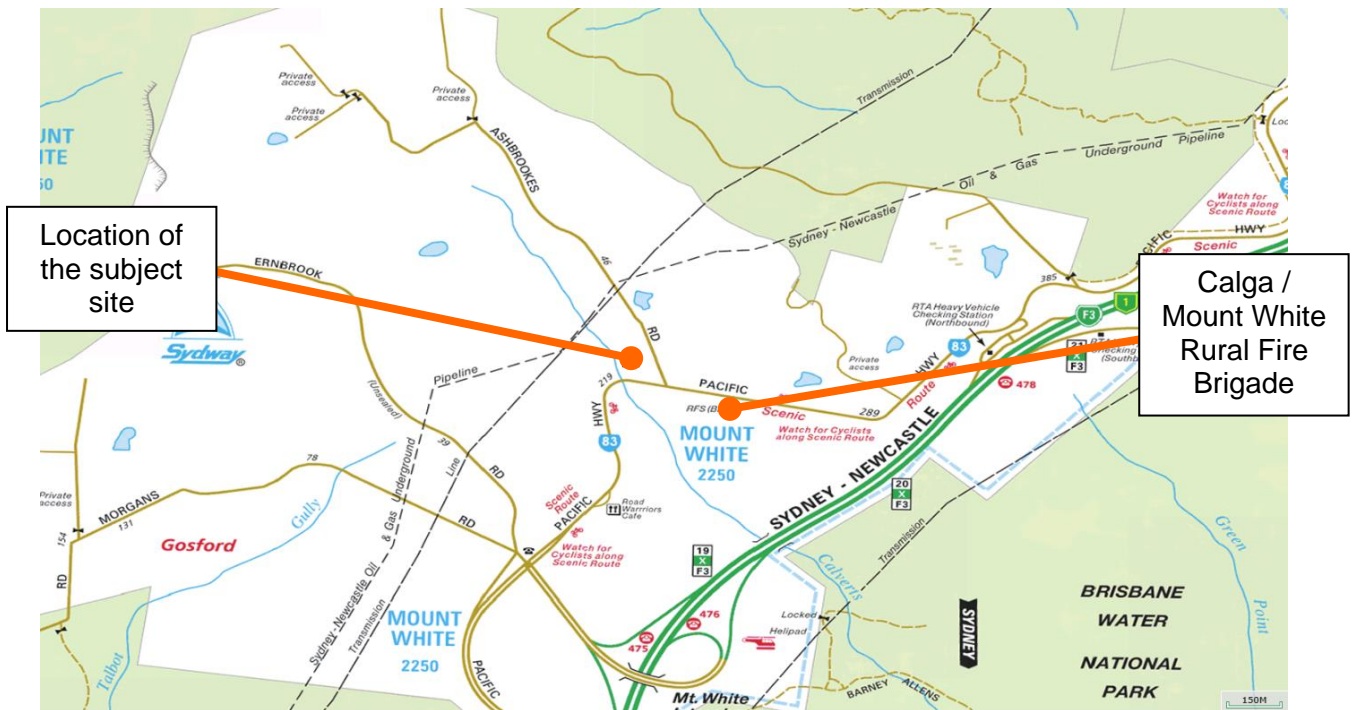


Figure 03: Extract from Street-directory.com.au

## 7.02 Vegetation

Historically the primary use of the site and neighbouring rural-residential properties to the north and west has been for agriculture purposes, including the cultivation of arable crops and breeding and raising of livestock. These farming practices and other anthropological disturbances have resulted in degraded or fragmented vegetation.

The neighbouring properties to the east was found to comprise of an active nursery and existing commercial development (Saddles) with associated landscaped surrounds.

It is acknowledged that as part of the approved Hawkesbury Lodge development the NSW Rural Fire Service conditioned the following Asset Protection Zones (APZs) within the subject site:

- *west for a distance of 21 metres; and,*
- *to the property boundary in all other directions.*

For the purpose of this assessment it has been assumed that all land within the subject site, excluding a retained riparian zone along Calverts Creek (shown in Figure 04), will be maintained to the standard of an APZ consistent with the current approval.

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

The vegetation that is posing a threat to the proposed buildings is located to the south within vegetated allotments and west being vegetated associated with Calverts Creek.

The existing vegetation within the subject site is mapped (Enviro Ecology 2022) as being cleared land with exotic plantings and Smooth-barked Apple - Turpentine - Sydney Peppermint heathy woodland on sandstone ranges of the Central Coast (PCT 1627).

Visual comparisons of the vegetation within the subject site and that to the south beyond Pacific Highway indicate they are similar.

The following vegetation parameters for the site were adopted for this assessment:

Plant Community Type	Formation	Class	Surface and Elevation Fuel Load*	Overall Fuel Load (including bark and canopy)*
Smooth-barked Apple - Turpentine - Sydney Peppermint heathy woodland on sandstone ranges of the Central Coast	Dry Sclerophyll Forests (Shrubby sub-formation)	Sydney Coastal Dry Sclerophyll Forests	21.3 t/ha	27.3 t/ha

\* Fuel loads from NSW Rural Fire Service publication Comprehensive Vegetation Fuel Loads (2019)

The vegetation opposing a hazard to the west along Calverts Creek was found to be a narrow band (generally 40-60 metres wide), contained known hard to burn species and exotics and is broken / disrupted by a formed road, trails and electrical transmission lines.

In accordance with A1.11.1 'Simplified Approach' of *Planning for Bush Fire Protection 2019* and consistent with the approved Hawkesbury Lodge application we have applied a rainforest (remnant) classification to the hazard to the west.

In acknowledging that the remnant hazard to the west expands for a short distance as a validation process Short Fire Run modelling consistent with A1.11.2 of PBP was undertaken and found that the reported remnant hazard presented the highest threat.

For the purpose of assessment under PBP the vegetation posing a hazard to the south was determined to be Forest.

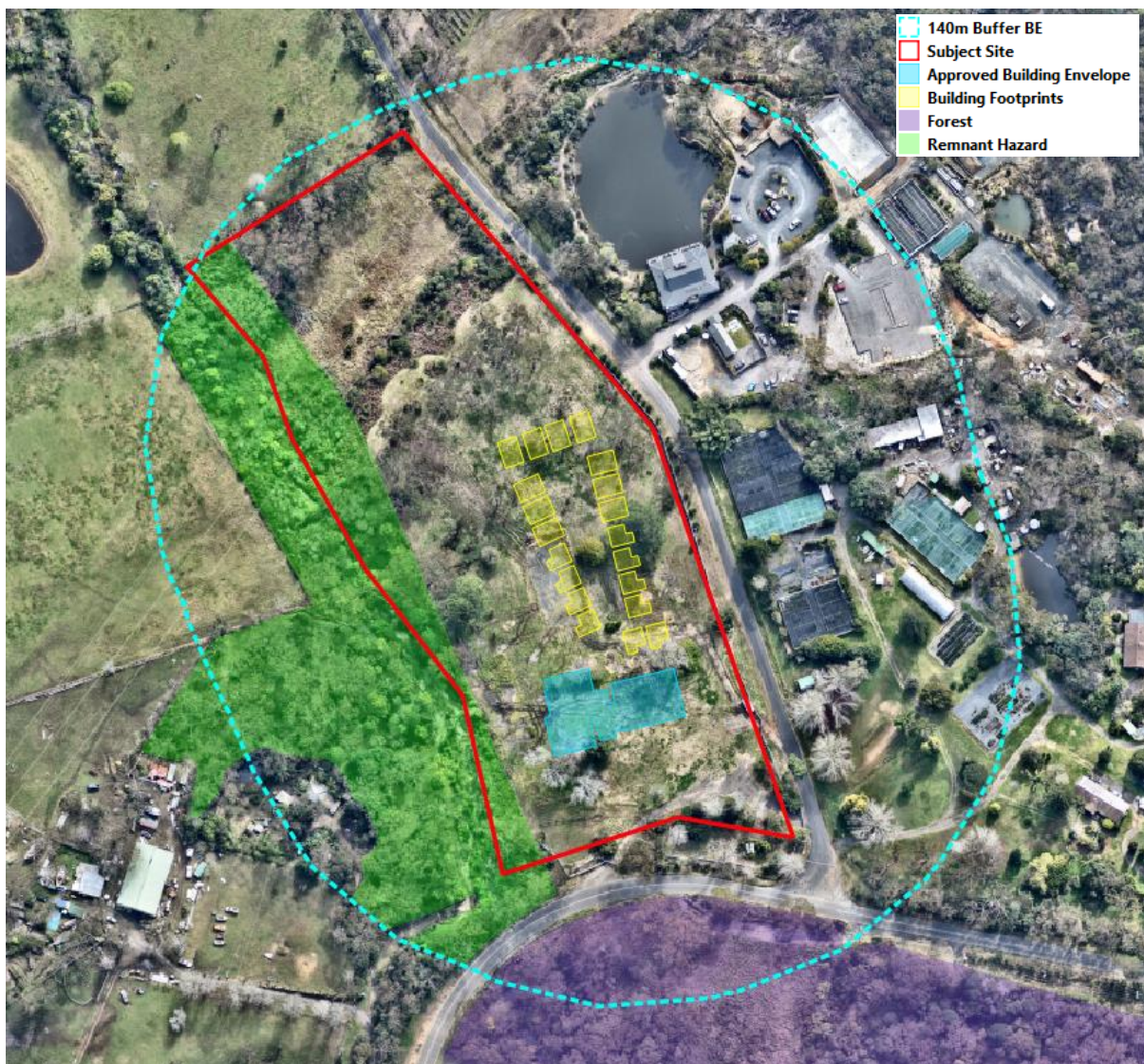


Figure 04: Aerial view of subject area overlaid with vegetation assessment

Remnant



Photograph 01: View north from Pacific Highway along Calverts Creek (remnant hazard)

Remnant



Photograph 02: View west from within the subject site toward the Remnant hazard

Forest



Photograph 03: View southeast from Pacific Highway toward the Forest hazard

### 7.03 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.

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

The slope that would **most significantly** influence bushfire impact was determined onsite using an inclinometer and verified using topographic imagery to be:

- 5 - 10 degrees down slope within the hazard to the south
- 0 - 5 degrees down slope within the hazard to the west

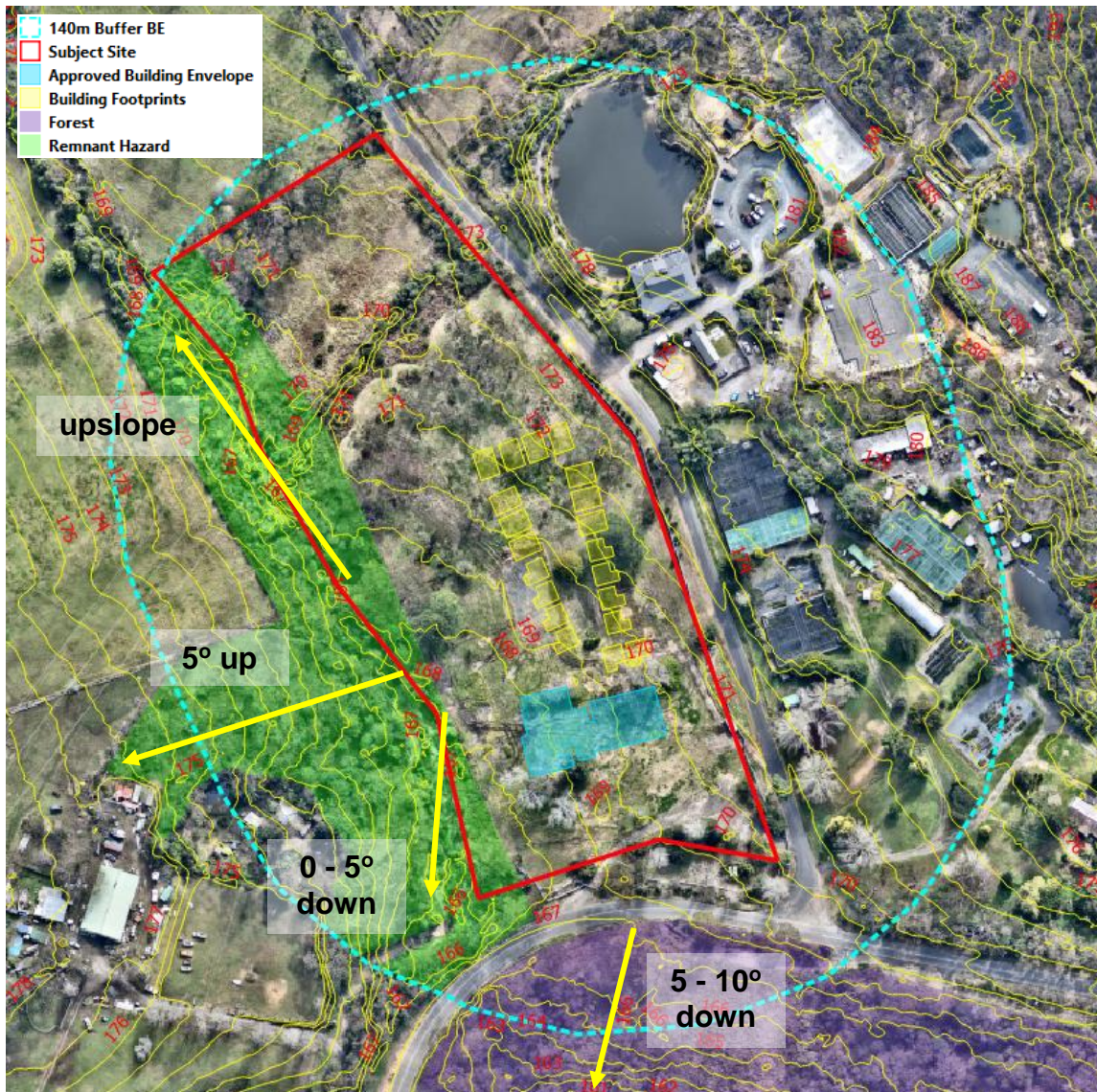


Figure 05: Extract from ELVIS – Geoscience Australia (1m contours)

## 7.04 Fire Weather

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

In accordance with the NSW Rural Fire Service publication 'NSW Local Government Areas FDI' (2017) Central Coast Council forms part of the Greater Sydney Region and attracts an FFDI of 100.

## 8.0 Bushfire Protection Measures

### 8.01 Planning for Bush Fire Protection - 2019

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.

Central Coast Council’s Bushfire Prone Land Map identifies the subject property as containing designated Category 1 Vegetation and the Vegetation Buffer therefore the subject site is considered ‘bushfire prone’.

Tourist accommodation is listed as Special Fire Protection Purpose (SFPP) development under section 100b (6 (d)) of the *Rural Fires Act 1997*.

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 proposal relates to a SFPP development and therefore in addition to the aim and objectives detailed in Chapter 1 ‘Introduction’ the proposal must satisfy the specific objectives and bushfire protection measures detailed in Chapter 6 ‘Special Fire Protection Purpose Developments’ of PBP.

The existing approved Bed & Breakfast is a ‘specific tourism use’ under section 6.3.2 of PBP which due to its characteristics (lower occupancy levels, presence of onsite manager etc) is eligible reduced APZs and increased construction standard to BAL 29.

While the proposal relates to the alterations and additions to an existing SFPP development, in acknowledging the proposed accommodation intensification no reduction in the minimum required APZs for new SFPP development (10kW/m<sup>2</sup> @ 1200K) has been applied.

### 8.02 Specific Objectives

The following table outlines the specific objectives that apply to SFPP development under section 6.2 of PBP and our comments on the proposals compliance or otherwise.

Objective	Comment
<p><i>minimise levels of radiant heat, localised smoke and ember attack through increased APZ, building design and siting;</i></p>	<p>The proposal includes Asset Protection Zones that achieve or exceed the requirements for new SFPP development to the proposed accommodation suites.</p> <p>The proposed APZs in conjunction with the application of relevant BAL to the new accommodation suites will minimise levels of radiant heat, localised smoke and ember attack.</p>



Objective	Comment
<p><i>provide an appropriate operational environment for emergency service personnel during firefighting and emergency management;</i></p>	<p>In this instance the proposed accommodation suites achieve a maximum radiant heat exposure of less than 10kW/m<sup>2</sup>, achieving the minimum requirement for new SFPP development.</p> <p>The proposal also includes the construction and maintenance of a fire trail parallel to the western hazard.</p> <p>The proposed APZs and fire trail in conjunction with existing public roads provide an appropriate operational environment for emergency service personnel.</p>
<p><i>ensure the capacity of existing infrastructure (such as roads and utilities) can accommodate the increase in demand during emergencies as a result of the development; and</i></p>	<p>The surrounding public roads provide existing carriageways in excess of the requirements for Non-Perimeter Roads as described in Table 6.8b of PBP.</p> <p>The external utility providers have systems in place to cater for increased demand as necessary.</p>
<p><i>ensure emergency evacuation procedures and management which provides for the special characteristics and needs of occupants.</i></p>	<p>This assessment includes a recommendation that a Bushfire Emergency Management Plan be prepared.</p>

### 8.03 Bushfire Protection Measures

Section 6.8 ‘Bush fire protection measures’ of PBP outlines the specific Bushfire Protection Measures (BPMs) applicable to Special Fire Protection Purpose development, including APZs, Construction, Access, Services and Emergency Management Plan.

The following section addresses each BPM and the proposals compliance or otherwise.

## Asset Protection Zones

Asset Protection Zones for new Special Fire Protection Purpose (SFPP) development are determined from Table A1.12.1 of PBP or bushfire design modelling achieving a radiant heat impact of no more than 10kW/m<sup>2</sup> at the closest point of the available building footprint.

While the proposal relates to the alterations and additions to an existing SFPP development, in acknowledging the proposed accommodation intensification no reduction in the minimum required APZs for new SFPP development (10kW/m<sup>2</sup> @ 1200K) has been applied.

The minimum required Asset Protection Zones for new Special Fire Protection Purpose development were determined from A1.12.1 of PBP to be 93 metres to the south and 47 metres to the west.

The proposed accommodation suites will be located >96 metres from the hazard to the south and ≥47 metres from the hazard to the west, achieving or exceeding the minimum required APZs.

All grounds within the subject site outside the 'Remnant Hazard' identified in Figure 04 will be maintained in accordance with an Inner Protection Area as detailed in the NSW Rural Fire Service's document 'Standards for Asset Protection Zones' and Appendix 4 of *Planning for Bush Fire Protection 2019*.



Figure 06: Aerial image of the subject site overlaid with the minimum required APZs from new SFPP development (red shade)

## Building construction, siting & design

Australian Standard 3959 – 2018 ‘Construction of buildings in bushfire-prone areas’ (AS3959) specifies construction standards for buildings within various Bushfire Attack Levels as determined by Planning for Bush Fire Protection – 2019.

AS3959 provides for six (6) levels of building construction these being BAL - Low, BAL - 12.5, BAL - 19, BAL - 29, BAL - 40 and BAL - FZ.

Correlation between bushfire impact and AS3959		
Bushfire Attack Level	Maximum radiant heat impact (kW/m <sup>2</sup> )	Level of construction under AS3959-2018
Low		No special construction requirements
12.5	≤12.5	BAL - 12.5
19	12.6 to 19.0	BAL - 19
29	19.1 to 29.0	BAL - 29
40	29.1 to 40.0	BAL - 40
Flame Zone	>40.0	BAL FZ No deemed to satisfy provisions

The highest Bushfire Attack Level to the proposed accommodation suites was determined from Table A1.12.5 of PBP to be ‘BAL 12.5’. The proposed accommodation suites shall comply with sections 3 and 5 (BAL 12.5) of AS 3959 – 2018 and the additional construction requirements under section 7.5 of PBP.

The approved Hawkesbury Lodge building which will be modified to remove the accommodation suites and exclusively used for the restaurant and bar, day spa and associated uses remains in a BAL 29 area.

The National Construction Code does not provide for any bush fire specific performance requirements for Class 5 to 8 structures and as such Australian Standard 3959 ‘Construction of buildings in bushfire-prone areas’ 2018 does not apply as a set of ‘deemed to satisfy’ provisions.

In consideration of the nature of the building we have recommended that the Hawkesbury Lodge building comply with BAL 29 construction to provide for a suitable level of bushfire resilience.

In relation to the proposed new machinery / storage shed section 8.3.2 of PBP states:

- The NCC defines a Class 10 building as a non-habitable building or structure such as a:*
- a. Class 10a – a non-habitable building being a private garage, carport, shed or the like; or*
  - b. Class 10b – a structure being a fence, mast, antenna, retaining or free-standing wall, swimming pool, or the like; or*
  - c. Class 10c – a private bush fire shelter*

*There is no bush fire protection requirements for Class 10a buildings located more than 6m from a dwelling in bush fire prone areas. Where a Class 10a building is located within 6m of a dwelling it must be constructed in accordance with the NCC.*

The proposed new machinery / storage shed will be located greater than 6 metres from any existing and proposed dwelling and therefore attracts no bushfire protection requirements.

## Property Access

The subject property has street access to Pacific Highway to the south and Ashbrookes Road to the east.

The proposal includes expanded carparking (58 vehicles) and a new perimeter fire trail between the western bushfire hazard and proposed accommodation suites.

It is acknowledged that the provision of a perimeter fire trail in lieu of a perimeter road could be seen as a departure from the Acceptable Solutions described in Table 6.8.2 of PBP and subsequently compliance is sought with the corresponding Performance Criteria.

The corresponding Performance Criteria for the above is:

*firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation.*

And the overall intent of the access measures being:

*to provide safe operational access for emergency services personnel in suppressing a bush fire, while residents are accessing or egressing an area.*

The proposed perimeter fire trail will provide attending fire service direct interface access to the identified Remnant (western) hazard. Vehicle access to the identified Forest (southern) hazard already exist by way of the Pacific Highway.

During times of emergency this fire trail will be used exclusively used by fire services and subsequently fire service movement will not hinder access from the site for staff and guests.

The commercial aspect of proposal also ensure ongoing funding and management of the fire trail to assure it remains in a serviceable condition. The proposed fire trail is to comply with the relevant requirements for a Category 1 Fire Trail as described in the NSW RFS publication 'NSW RFS Fire Trail Standards' and 'NSW Rural Fire Service Fire Trail Design Construction and Maintenance Manual'.

In consideration of the site specific circumstances it is of our opinion that the proposed access provisions in conjunction with the existing public roads will provide firefighting vehicles with safe access to structures and hazards, while staff and guests are seeking to evacuate the area.

## Water Supply & Utilities

There are no hydrants available within the immediate locality and therefore a Static Water Supply is required.

The proposal includes the installation of a dedicated 311,000 litre fire-fighting static water supply.

In addition the proposed swimming pool, which is accessible via the proposed perimeter fire trail, provides an additional 225,000 litres.

The new buildings will be connected to the existing electrical network.

Any new electrical and gas connections must comply with Table 6.8c of PBP.

## Emergency management arrangements

Evacuation is possible by utilising existing road infrastructure. The existing access is considered adequate for a timely occupant evacuation and fire service access.

This assessment includes a recommendation that the Bushfire Emergency Management Plan be updated.

### 8.04 Aim & Objectives of PBP

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

Aim / Objective	Comment
<p><b>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.</b></p>	<p>With the inclusion of the recommendations made herein it is of our opinion that the aim of PBP has been satisfied.</p>
<p><b>(i) afford buildings and their occupants protection from exposure to a bush fire;</b></p>	<p>The proposed buildings will be constructed to the relevant Bushfire Attack Level under Australian Standard 3959 'Construction of building in bushfire-prone areas' 2018.</p> <p>The buildings and their occupants are afforded protection from a bushfire.</p>

Aim / Objective	Comment
<p><b>(ii) provide for a defensible space to be located around buildings;</b></p>	<p>In this instance the proposed accommodation suites achieve a maximum radiant heat exposure of less than 10kW/m<sup>2</sup>, achieving the minimum requirement for new SFPP development.</p> <p>The proposal also includes the construction and maintenance of a fire trail parallel to the western hazard.</p> <p>The proposed APZs and fire trail in conjunction with existing public roads provide an appropriate defensible space.</p>
<p><b>(iii) provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;</b></p>	<p>The available APZ and the application of the recommended construction provisions will prevent the likely fire spread to the building.</p>
<p><b>(iv) ensure that appropriate operational access and egress for emergency service personnel and occupants is available;</b></p>	<p>Fire appliances have direct access to the hazard interfaces via the existing public roads and proposed perimeter fire trail.</p>
<p><b>(vi) ensure that utility services are adequate to meet the needs of firefighters.</b></p>	<p>The proposal includes the installation of a dedicated 311,000 litre fire-fighting static water supply.</p> <p>In addition the proposed swimming pool, which is accessible via the proposed perimeter fire trail, provides an additional 225,000 litres.</p>

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

## 8.05 Submission Detail

Clause 45 of the *Rural Fires Regulation 2022* identifies various items which must be addressed and included within an application for a Bush Fire Safety Authority. The following table outlines these items and includes a corresponding response.

Submission Detail	Response
<i>(a) a description (including the address) of the property on which the development the subject of the application is proposed to be carried out,</i>	See section 6.01
<i>(b) a classification of the vegetation on and surrounding the property (out to a distance of 140 metres from the boundaries of the property) in accordance with the system for classification of vegetation contained in Planning for Bush Fire Protection,</i>	See section 6.02
<i>(c) an assessment of the slope of the land on and surrounding the property (out to a distance of 100 metres from the boundaries of the property),</i>	See section 6.03
<i>(d) identification of any significant environmental features on the property,</i>	Refer to Flora and Fauna Assessment prepared by Enviro Ecology (2022)
<i>(e) the details of any threatened species or threatened ecological community under the Biodiversity Conservation Act 2016 that is known to the applicant to exist on the property,</i>	Refer to Flora and Fauna Assessment prepared by Enviro Ecology (2022)
<i>(f) the details and location of any Aboriginal object (within the meaning of the National Parks and Wildlife Act 1974) or Aboriginal place (within the meaning of that Act) that is known to the applicant to be situated on the property,</i>	No known sites
<i>(g) a bush fire assessment for the proposed development (including the methodology used in the assessment) that addresses the following matters—</i>	See section 7.0
<i>(i) the extent to which the development is to provide for setbacks, including asset protection zones,</i>	See section 7.03
<i>(ii) the siting and adequacy of water supplies for fire fighting,</i>	See section 7.03
<i>(iii) the capacity of public roads in the vicinity to handle increased volumes of traffic in the event of a bush fire emergency,</i>	<p>The egress routes are available from the subject site via existing public roads.</p> <p>These roads are considered adequate to accommodate a timely evacuation from the site.</p>

Submission Detail	Response
<i>(iv) whether or not public roads in the vicinity that link with the fire trail network have two-way access,</i>	Pacific Highway does not link to a classified fire trail within the subject area.
<i>(v) the adequacy of arrangements for access to and egress from the development site for the purposes of an emergency response,</i>	See section 7.03
<i>(vi) the adequacy of bush fire maintenance plans and fire emergency procedures for the development site,</i>	See section 7.03
<i>(vii) the construction standards to be used for building elements in the development,</i>	See section 7.03
<i>(viii) the adequacy of sprinkler systems and other fire protection measures to be incorporated into the development,</i>	There is no existing bushfire sprinkler system, nor is one proposed.  See section 7.03 for all bushfire protection measures.
<i>(ix) any registered fire trails on the property,</i>	There are no registered fire trails within the subject site.



## 9.0 Recommendations

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The following recommendations are provided as the minimum necessary for compliance with *Planning for Bush Fire Protection – 2019* and Australian Standard 3959 'Construction of buildings in bushfire-prone areas - 2018'. Additional recommendations are provided to supplement these minimum requirements where considered necessary.

### Asset Protection Zones

1. That all grounds within the subject site outside the 'Remnant Hazard' identified in Figure 04 be maintained in accordance with an Inner Protection Area as detailed in the NSW Rural Fire Service's document 'Standards for Asset Protection Zones' and Appendix 4 of *Planning for Bush Fire Protection 2019*.

### Landscaping

2. That any new landscaping is to comply with Appendix 4 of *Planning for Bush Fire Protection 2019*.

### Construction

3. That all new construction for the accommodation suites shall comply with sections 3 and 5 (BAL 12.5) Australian Standard AS3959-2018 'Construction of buildings in bush fire-prone areas' and section 7.5 of *Planning for Bush Fire Protection 2019*.
4. That all new construction for the Hawkesbury Lodge building shall comply with sections 3 and 7 (BAL 29) Australian Standard AS3959-2018 'Construction of buildings in bush fire-prone areas' and section 7.5 of *Planning for Bush Fire Protection 2019*.

### Emergency Management

5. That a Bushfire Emergency Management Plan be prepared consistent with the NSW Rural Fire Service Guidelines for the *Preparation of Emergency / Evacuation Plan*.

### Access

6. That the proposed fire trail is to comply with the relevant requirements for a Category 1 Fire Trail as described in the NSW RFS publication 'NSW RFS Fire Trail Standards' and 'NSW Rural Fire Service Fire Trail Design Construction and Maintenance Manual'.

## Services (where applicable)

### Water:

10. That a minimum 100,000 litre static water supply be provided which complies with the following requirements of Table 6.8c of *Planning for Bush Fire Protection* 2019:
  - a connection for firefighting purposes is located within the IPA or non hazard side and away from the structure; a 65mm Storz outlet with a ball valve is fitted to the outlet;
  - ball valve and pipes are adequate for water flow and are metal;
  - supply pipes from tank to ball valve have the same bore size to ensure flow volume;
  - underground tanks have an access hole of 200mm to allow tankers to refill direct from the tank;
  - a hardened ground surface for truck access is supplied within 4m of the access hole;
  - above-ground tanks are manufactured from concrete or metal;
  - raised tanks have their stands constructed from non-combustible material or bush fire-resisting timber (see Appendix F AS 3959);
  - unobstructed access is provided at all times;
  - tanks on the hazard side of a building are provided with adequate shielding for the protection of firefighters; and
  - underground tanks are clearly marked,
  - all exposed water pipes external to the building are metal, including any fittings;
  - where pumps are provided, they are a minimum 5hp or 3kW petrol or diesel-powered pump, and are shielded against bush fire attack; Any hose and reel for firefighting connected to the pump shall be 19mm internal diameter; and
  - fire hose reels are constructed in accordance with AS/NZS 1221:1997 Fire hose reels, and installed in accordance with the relevant clauses of AS 2441:2005 Installation of fire hose reels.

### Electricity:

7. Any new electrical services must comply with Table 6.8c of *Planning for Bush Fire Protection* 2019, specifically:
  - where practicable, electrical transmission lines are underground.
  - where overhead electrical transmission lines are proposed:
    - lines are installed with short pole spacing (30 metres), 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 *ISSC3 Guideline for Management Vegetation Near Power Lines*.

Gas:

8. Any new gas services must comply with Table 6.8c of *Planning for Bush Fire Protection* 2019, specifically:
  - reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 - *The storage and handling of LP Gas*, 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;
  - connections to and from gas cylinders are metal;
  - if gas cylinders need to be kept close to the building, safety valves are directed away from the building and at least 2m away from any combustible material, so they do not act as a catalyst to combustion;
  - polymer-sheathed flexible gas supply lines to gas meters adjacent to buildings are not to be used; and
  - above-ground gas service pipes external to the building are metal, including and up to any outlets.

## 10.0 Conclusion

Building Code and Bushfire Hazard Solution P/L has been commissioned by White + Dickson Architects to provide an independent Bushfire Assessment Report to accompany a Development Application (DA) which seeks approval for a development at Grand Saddles Lodge, Mount White (231 Pacific Highway, Mount White).

Central Coast Council's Bushfire Prone Land Map identifies the subject property as containing the designated Category 1 Vegetation and the Vegetation Buffer therefore the subject site is considered 'bushfire prone'.

Tourist accommodation is listed as Special Fire Protection Purpose (SFPP) development under section 100b (6(d)) of the *Rural Fires Act 1997*.

The proposal relates to a SFPP development and therefore in addition to the aim and objectives detailed in Chapter 1 'Introduction' the proposal must satisfy the specific objectives and bushfire protection measures detailed in Chapter 6 'Special Fire Protection Purpose Developments' of PBP.

In accordance with the bushfire safety measures contained in this report, and consideration of the site specific bushfire risk assessment it is our opinion that when combined, they will provide a reasonable and satisfactory level of bushfire protection to the subject development.

We are therefore in support of the development application.

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

Prepared by  
Building Code & Bushfire Hazard Solutions P/L



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Reviewed by  
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## 11.0 Annexure 01

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### List of Referenced Documents

Australian Building Codes Board (2019). *National Construction Code Volume Two - Building Code of Australia*. ABCB

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Environmental Planning and Assessment Act 1979

Enviro Ecology (2022). Flora and Fauna Assessment for No 231 Pacific Highway Mount White, rev A, dated 22.07.2022

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NSW Rural Fire Service (2019). *Planning for Bush Fire Protection. A Guide for Councils, Planners, Fire Authorities and Developers*.

Rural Fires Act 1997

Rural Fires Regulation 2022

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

Site Plan by White + Dickson Architects, titled Grand Saddles Lodge, dated 15.09.2022

Standards Australia (2018). *AS3959:2018 Construction of buildings in bushfire-prone areas*.

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

Acknowledgements to:

Geoscience Australia  
NSW Department of Lands – SIXMaps  
Street-directory.com.au  
Nearmap

### Attachments

NIL