

Bushfire Assessment Report

Proposed:
**State Significant
Development**

At:
**Pacific Brook Christian
School, Muswellbrook**

Reference Number: 211436

Prepared For:
Pacific Brook Christian School

24th September 2021



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Version Control				
Version	Date	Author	Reviewed by	Details
1	22/06/2021	Andrew Muirhead	Stuart McMonnies BPAD Accreditation No. 9400	Draft Report
2	1/07/2021	Andrew Muirhead	Stuart McMonnies BPAD Accreditation No. 9400	Final Report
3	24/09/2021	Andrew Muirhead	Stuart McMonnies BPAD Accreditation No. 9400	Plan update

List of Abbreviations:

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	Muswellbrook Shire Council
DA	Development Application
ELVIS	Elevation and Depth Foundation Spatial Data
EP&A Act	<i>Environmental Planning and Assessment Act - 1979</i>
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
SSD	State Significant Development
SWS	Static Water Supply

Executive Summary:

Building Code and Bushfire Hazard Solution P/L has been commissioned by Pacific Brook Christian School to prepare an independent Bushfire Assessment Report for the proposed Pacific Brook Christian School (PCBS), located at 72-74 Maitland Street, Muswellbrook (the site).

This application is being assessed as a State Significant Development (Application No. SSD_16858710).

Pacific Brook Christian School proposes the staged construction of a new school at 72-74 Maitland Street, Muswellbrook. This will involve site preparation work (including remediation), the removal of 96 trees (7 within Stage 1), civil works, infrastructure works, landscaping, signage and construction works in stages over the next 10 years.

The masterplan will support high-quality educational outcomes to meet the needs of students within the local community as follows:

- Administration building and Library;
 - One (1) staff and student amenities block;
- Junior School facilities;
 - Ten (10) General Learning Areas (GLAs);
 - Two (2) Specialist classroom;
 - One (1) Store; and
 - Covered Outdoor Learning Area (COLA)
- Middle School facilities;
 - Seven (7) General Learning Areas (GLAs);
 - One (1) Science classroom; and
 - Covered Outdoor Learning Area (COLA)
- Senior School facilities;
 - Eight (8) General Learning Areas (GLAs);
 - One (1) Specialist classroom;
 - Three (3) TAS classrooms;
 - Two (2) Food Tech classrooms;
 - One (1) Art classroom;
 - One (1) Drama classroom;
 - Four (4) amenities block;
 - Three (3) Store; and
 - Covered Outdoor Learning Area (COLA)
- Hope School (special needs) facilities;
 - Four (4) General Learning Areas (GLAs);
 - One (1) Specialist classroom;
 - Four (4) Shared Withdrawal rooms;
 - One (1) Office;
 - One (1) Staff room;
 - One (1) Interview + Therapy room;
 - Three (4) amenities block;
 - Three (3) Store; and
 - Covered Outdoor Learning Area (COLA)
- Multi-Purpose Hall;
- Maximum student capacity of 656;
- Maximum 65 staff;

- Agricultural teaching facility;
- Maintenance and bus area;
- On-site Parking (67 spaces, inclusive of 1 accessible);
- Bike parking x 36;
- Internal pathways;
- Kiss and drop off areas;
- Bus stop;
- Waste Storage and collection area;
- Signage;
- Bush Chapel
- Removal of 96 trees (total);
- Landscaping (including Bush Chapel);
- Infrastructure works;
- Earthworks;
- Secondary emergency vehicle/ large vehicle access;
- Acoustic and safety fence; and
- Widening of existing vehicular access from Maitland Street

Stage 1 of the masterplan consists of:

- Site remediation;
- Removal of 7 trees;
- Facilities for a maximum of 140 students and 16 staff, including:
 - One (1) administration and staff area;
 - One (1) staff and student amenities block (including one (1) end of trip facility);
 - Five (5) General Learning Areas (GLAs);
 - One (1) Science classroom; and
 - Covered Outdoor Learning Area (COLA)
- Internal pathways;
- On-site Parking (15 spaces, inclusive of 1 accessible);
- Bike parking x 6;
- Kiss and drop off areas;
- Bus stop;
- Bin storage and collection area;
- Signage;
- Infrastructure works; and
- Widening of existing vehicular access from Maitland Street.

The Minister for Planning, or their delegate, is the consent authority for the SSDA and this application has been lodged with the NSW Department of Planning and Environment (**NSW DPE**) for assessment.

Muswellbrook Shire Council's Bushfire Prone Land Map does not identify the subject property as containing either Category 1, 2, or 3 Vegetation or any of the associated buffer zones, therefore the subject site is not 'Bushfire Prone'.

In relation to this application NSW DPE has consulted with the NSW Rural Fire Service (RFS) seeking input regarding the preparation of Secretary's Environmental Assessment Requirements (SEARs).

In response, and regardless of the site not being mapped bushfire prone, the RFS has requested a bush fire assessment report shall be prepared which identifies the extent to which the proposed development conforms with or deviates from the relevant provisions of *Planning for Bush Fire Protection 2019* (PBP).

This report has been prepared to address the relevant specifications and requirements of PBP.

Schools are considered Special Fire Protection Purpose (SFPP) development under section 100b (6 (a)) of the *Rural Fires Act 1997*, although this is not applicable in this case as the subject property is not considered to be 'Bushfire Prone'.

Regardless the proposal has been assessed to the aim and objectives detailed in Chapter 1 'Introduction' and the specific objectives and bushfire protection measures detailed in Chapter 6 'Special Fire Protection Purpose Developments' of PBP.

In this instance the proposed buildings were found to be located greater than 100 metres from any bushfire hazard and subsequently attracts a Bushfire Attack Level of Low and exceeds the minimum required Asset Protection Zones for SFPP development.

The existing APZs consist of maintained grounds within the subject property, neighbouring properties and the existing road infrastructure.

It is of our opinion that the proposal satisfies all relevant specifications and requirements of *Planning for Bush Fire Protection 2019*.

1.0 Introduction

The development proposal relates to the construction and operation of a school, being a staged K-8 co-educational school including an assisted learning class, at 72-74 Maitland Street, Muswellbrook (the site).

This application is being assessed as a State Significant Development (Application No. SSD_16858710).

The subject property has street frontage to the Maitland Street to the southwest, Muswellbrook Golf Club to the north and residential allotments to the southeast.

Muswellbrook Shire Council's Bushfire Prone Land Map does not identify the subject property as containing either Category 1, 2, 3 Vegetation or any of the associated buffer zones, therefore the subject site is not 'Bushfire Prone'.

In relation to this application NSW DPE has consulted with the NSW Rural Fire Service (RFS) seeking input regarding the preparation of Secretary's Environmental Assessment Requirements (SEARs).

In response, and regardless of the site not being mapped bushfire prone, the RFS has requested a bush fire assessment report shall be prepared which identifies the extent to which the proposed development conforms with or deviates from the relevant provisions of *Planning for Bush Fire Protection 2019* (PBP).

This report has been prepared to address the relevant specifications and requirements of PBP.

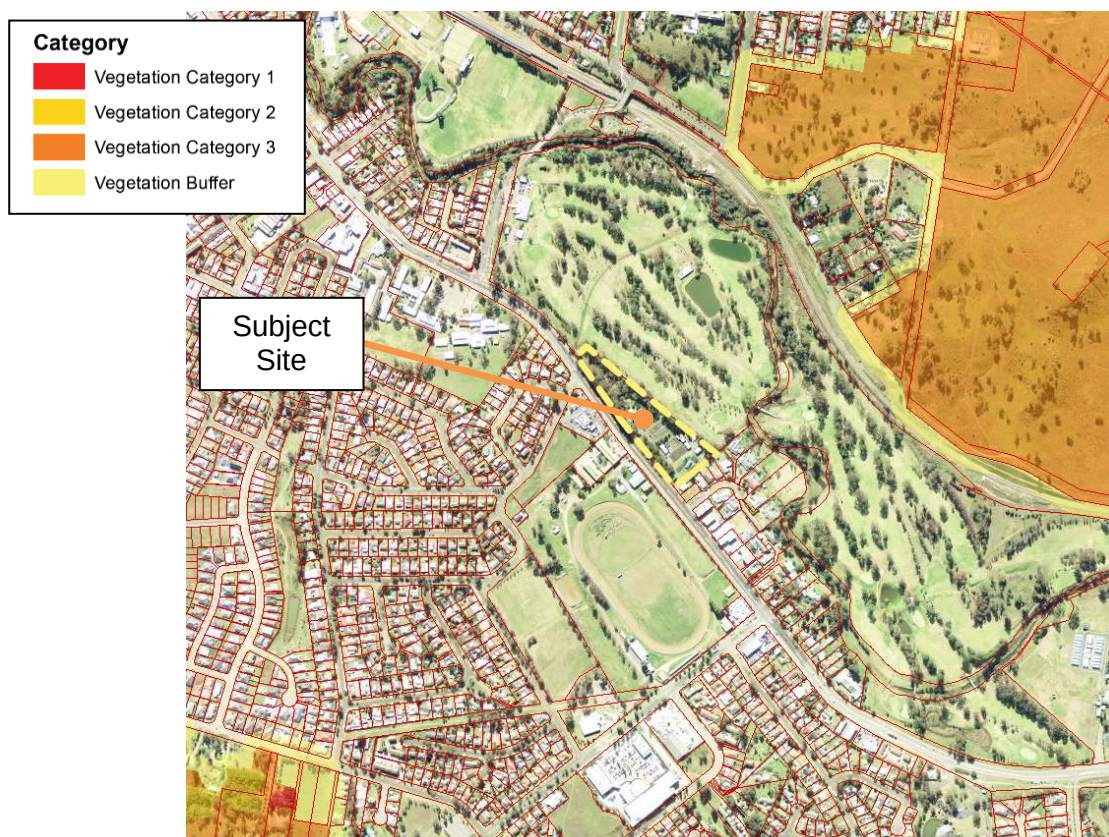


Figure 01: Extract from Muswellbrook Shire Council's Bushfire Prone Land Map

2.0 Purpose of Report

The purpose of this Bushfire Assessment Report is to provide an independent bushfire assessment of the subject site and surrounding area and to determine if the State Significant Development (Application No. SSD_16858710) will comply with the relevant specifications and requirements 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 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.

4.0 Compliance Tables & Notes

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

	North	East	South	West
Vegetation Structure	Managed Land	Managed Land	Managed Land	Managed Land
Slope	N/A	N/A	N/A	N/A
Required Asset Protection Zone	N/A	N/A	N/A	N/A
Available Asset Protection Zone	>140 metres	>140 metres	>140 metres	>140 metres
Threatened Species	APZ Existing	APZ Existing	APZ Existing	APZ Existing
Aboriginal Relics	APZ Existing	APZ Existing	APZ Existing	APZ Existing
Bushfire Attack Level	N/A	N/A	N/A	N/A
Required Construction Level	BAL Low	BAL Low	BAL Low	BAL Low

Compliance Summary of Bushfire Protection Measures Assessed			
Bushfire Protection Measure	Acceptable Solution	Performance Solution	Report Section
Asset Protection Zones & Landscaping	☒	☐	7.03
Construction Standard	☒	☐	7.03
Access	☒	☐	7.03
Services	☒	☐	7.03
Emergency Management Planning	☒	☐	7.03

Asset Protection Zones Compliance

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/m² at the closest point of the available building footprint.

No bushfire or grassfire hazard was identified within the 140 metre assessment area and therefore there are no minimum required Asset Protection Zones.

Construction Level Compliance

The highest Bushfire Attack Level to the proposed buildings was determined from Table A1.12.5 of PBP to be 'BAL Low'. There are therefore no construction provisions applicable to the proposed buildings.

5.0 Aerial view of the subject allotment

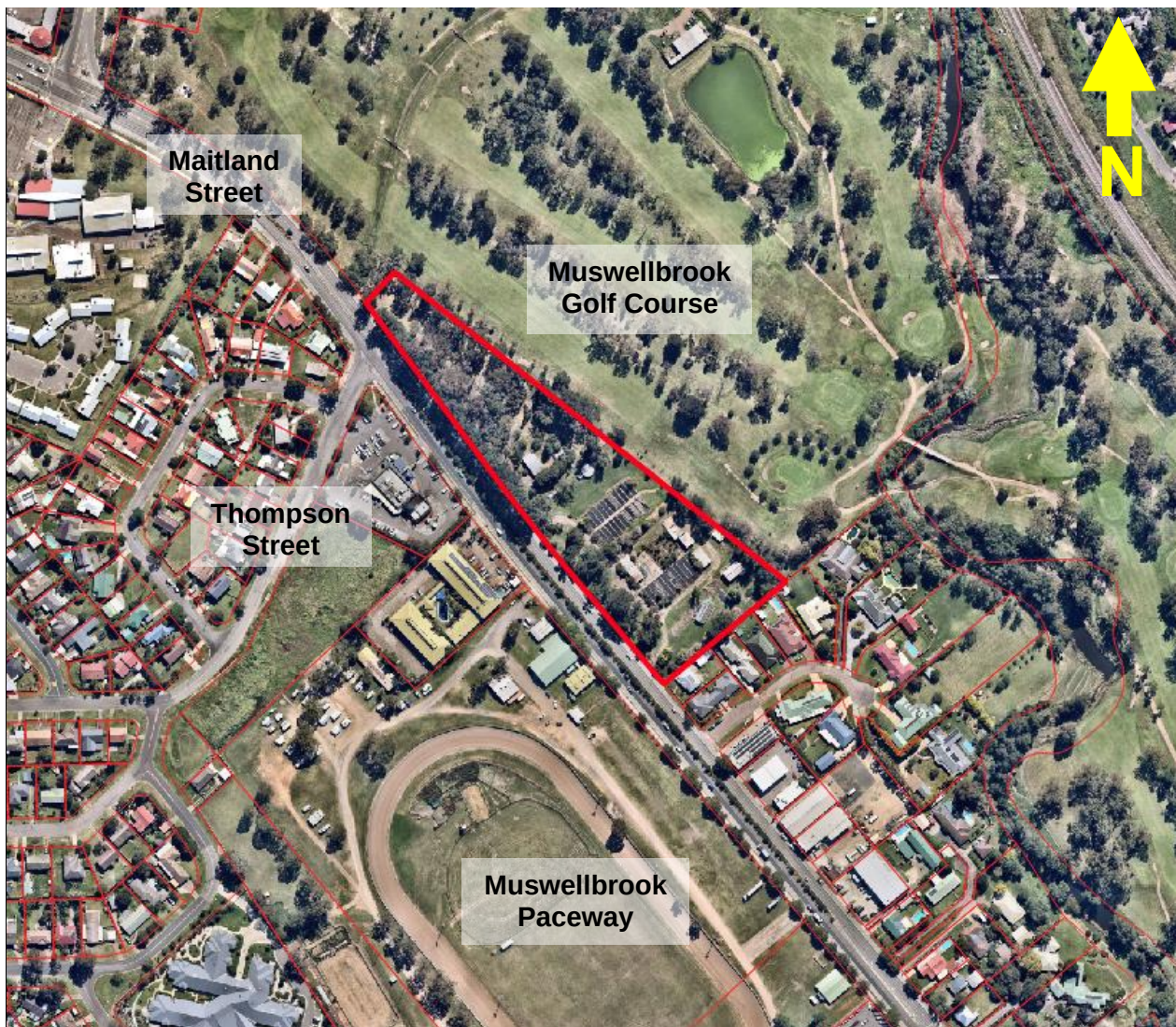


Figure 02: Aerial view of the subject site (thick red outline) and surrounding area
Courtesy Nearmap – April 2021

6.0 Site Assessment

6.01 Location

The site is triangular in shape, with a northwest/southeast alignment and has an area of 2.432 ha. The site is bound by Muswellbrook Golf Course along the north eastern boundary, Maitland Street along the south western boundary and residential properties to the south eastern boundary (see **Figure 03**). The site address is 72-74 Maitland Street and is legally described as Lot 100 in Deposited Plan (DP) 1261496 (see **Figure 04**).

The site is generally level with a slight slope to a watercourse at the north west boundary. This watercourse flows northeast into the adjoining golf course and on to Muscle Creek via a series of dams on the golf course. Muscle Creek flows west into the Hunter River which at its closest is 1.3 km north-west of the site. Stormwater management on site is by overland flow.

72-74 Maitland Street was previously used for forestry plantation purposes and is mapped as Muswellbrook State Forest. The site is no longer used for this purpose and currently sits as an empty and underutilised site.

The main vehicular access to the site is from Maitland Street, as well as pedestrian access. Existing vehicular parking on site includes open air at grade parking spaces facing Maitland Street.



Figure 03: Aerial image of site boundary

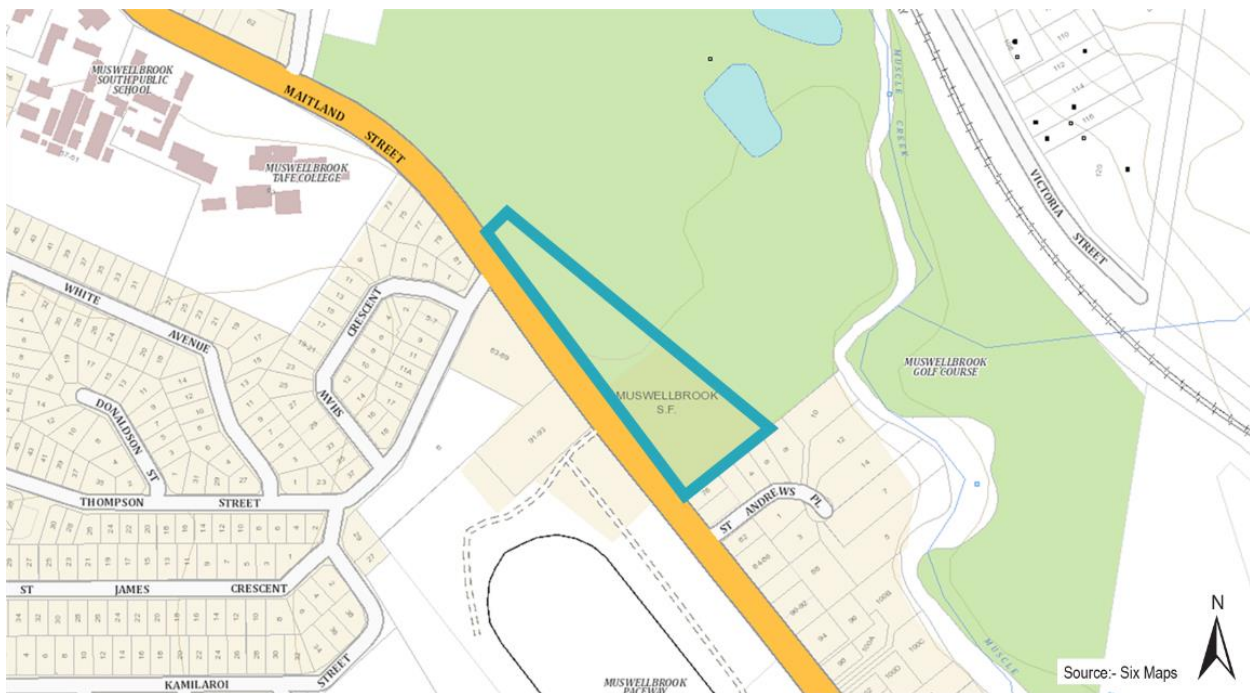


Figure 04: Site Context

6.02 Vegetation

The predominate vegetation within the subject site was found to comprise of mown lawns. The northern portion of the site was found to have a higher concentration of mature trees.

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

There was no unmanaged vegetation within the 140 metre assessment area that would be considered to pose a bushfire or grassfire threat.

A vacant allotment was observed to the west of the subject site. A review of historic high resolution aerial imagery found this property is subject to periodic slashing and consequently was not considered a hazard. Regardless it should be noted that even if this property is considered a grassland hazard it does not alter the conclusion and recommendations of this assessment.

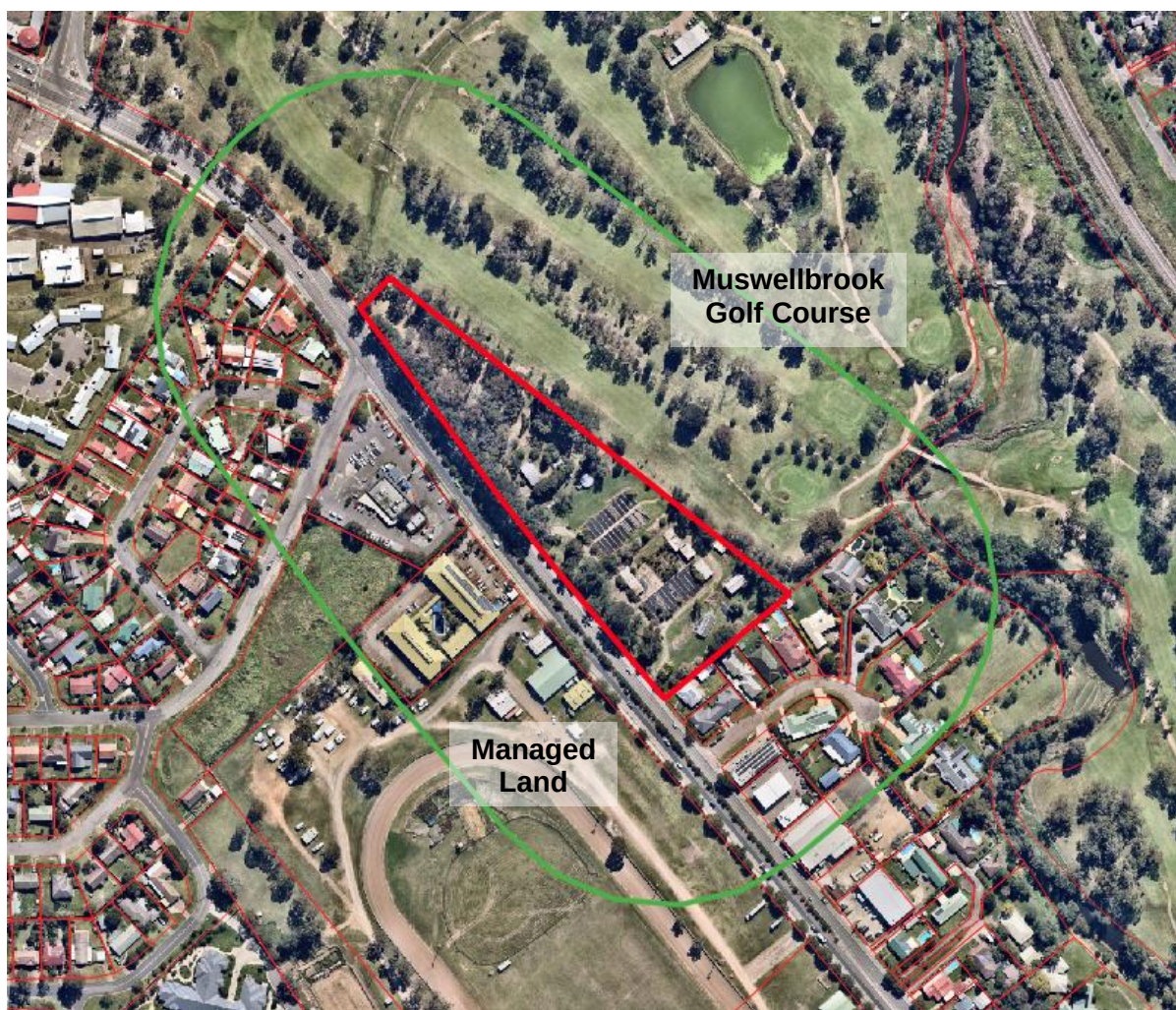


Figure 05: Aerial view of the subject site overlaid with 140m vegetation assessment area (green line)

6.03 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.

In this instance no bushfire or grassfire hazard was identified within the assessment area and subsequently a slope analysis is not required.



Figure 06: Extract from Nearmap and ELVIS showing 1 metre contours

6.04 Fire History

There are areas within NSW that have significant fire history and are recognised as known fire paths. While the fire history is more commonly considered as part of strategic planning (to ensure future development is not exposed to an unacceptable risk), it is useful to consider at a Development Application phase to ensure the land is suitable for development in the context of bushfire risk.

In this instance there have been no wildfires recorded within the area (source NPWS Fire History dataset). The closest recorded wildfire was found to be located >2.7 kilometres to the south of the subject site.

The subject site is therefore not considered to be within a known fire path. Furthermore in consideration of the previous bushfire history the likelihood of a bushfire occurring within the immediate area is considered unlikely.

7.0 Bushfire Assessment

7.01 Planning for Bush Fire Protection - 2019

This application is being assessed as a State Significant Development (Application No. SSD-8571481).

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.

Muswellbrook Shire Council's Bushfire Prone Land Map does not identify the subject property as containing either Category 1, 2, or 3 Vegetation or any of the associated buffer zones, therefore the subject site is not 'Bushfire Prone'.

In relation to this application NSW DPE has consulted with the NSW Rural Fire Service (RFS) seeking input regarding the preparation of Secretary's Environmental Assessment Requirements (SEARs).

In response, and regardless of the site not being mapped bushfire prone, the RFS has requested a bush fire assessment report shall be prepared which identifies the extent to which the proposed development conforms with or deviates from the relevant provisions of *Planning for Bush Fire Protection 2019* (PBP).

Schools are considered Special Fire Protection Purpose (SFPP) development under section 100b(6 (a)) of the *Rural Fires Act 1997*, although this is not applicable in this case as the subject property is not considered to be 'Bushfire Prone'.

Regardless the proposal has been assessed to the aim and objectives detailed in Chapter 1 'Introduction' and the specific objectives and bushfire protection measures detailed in Chapter 6 'Special Fire Protection Purpose Developments' of PBP.

7.02 Specific Objectives

The following table lists the specific objectives for Special Fire Protection Purpose development in accordance with section 6.2 of PBP applicable to the proposal and our comments on compliance or otherwise.

Specific Objective	Comment
<i>minimise levels of radiant heat, localised smoke and ember attack through increased APZ, building design and siting;</i>	No bushfire or grassfire hazard was found within the 140 metre assessment area in any direction.

Specific Objective	Comment
<i>provide an appropriate operational environment for emergency service personnel during firefighting and emergency management;</i>	The subject site has street frontage to Maitland Street to the southwest. The proposal also provides managed land and good operational space around the proposed buildings. No bushfire or grassfire hazard was found within the 140 metre assessment area in any direction.
<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>	The surrounding public roads provide existing carriageways in excess of the requirements for Perimeter Roads as described in Table 6.8b of PBP. Furthermore in consideration of the low risk posed to the proposed building a large scale evacuation due to bushfire is considered unlikely. The external utility providers have systems in place to cater for increased demand as necessary.
<i>ensure emergency evacuation procedures and management which provides for the special characteristics and needs of occupants.</i>	This assessment includes a recommendation that a Bushfire Emergency Management Plan be prepared.

7.03 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, Landscaping, Construction, Access, Services & Emergency Management Plan.

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

Asset Protection Zones & Landscaping

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/m² at the closest point of the available building footprint.

No bushfire or grassfire hazard was identified within the 140 metre assessment area.

All grounds within the subject site will continue to be maintained in accordance with an Inner Protection Area as detailed in Appendix 4 of *Planning for Bush Fire Protection* 2019 and the NSW Rural Fire Service publication 'Standards for Asset Protection Zones'.

I have reviewed the Masterplan prepared by NBRS Architecture and am satisfied it will not result in an increased bushfire risk.

Construction

The proposed buildings are required to be constructed to the relevant Bushfire Attack Level under Australian Standard 3959 'Construction of buildings in bushfire-prone areas' 2018.

The highest Bushfire Attack Level (BAL) for the proposed buildings was determined from Table A1.12.5 of PBP to be BAL Low and therefore there are no bushfire construction requirements.

Access

The subject site has street frontage to Maitland Street to the southwest.

Vehicle access to the site is currently available via Maitland Street. The proposal includes a loop access road to the southwest of the proposed buildings. This extension will provide access to the car parking and delivery area.

The new internal road which will be utilised to access the proposed buildings and has the ability to achieve the carriageway requirements for non-perimeter roads as detailed in Table 6.8b of PBP.

Persons seeking to egress the proposed building will be able to do so to the southwest via the proposed roads and existing road infrastructure.

In consideration of the bushfire risk posed to the proposed buildings access for fire services and opportunities for occupant evacuation are considered adequate.

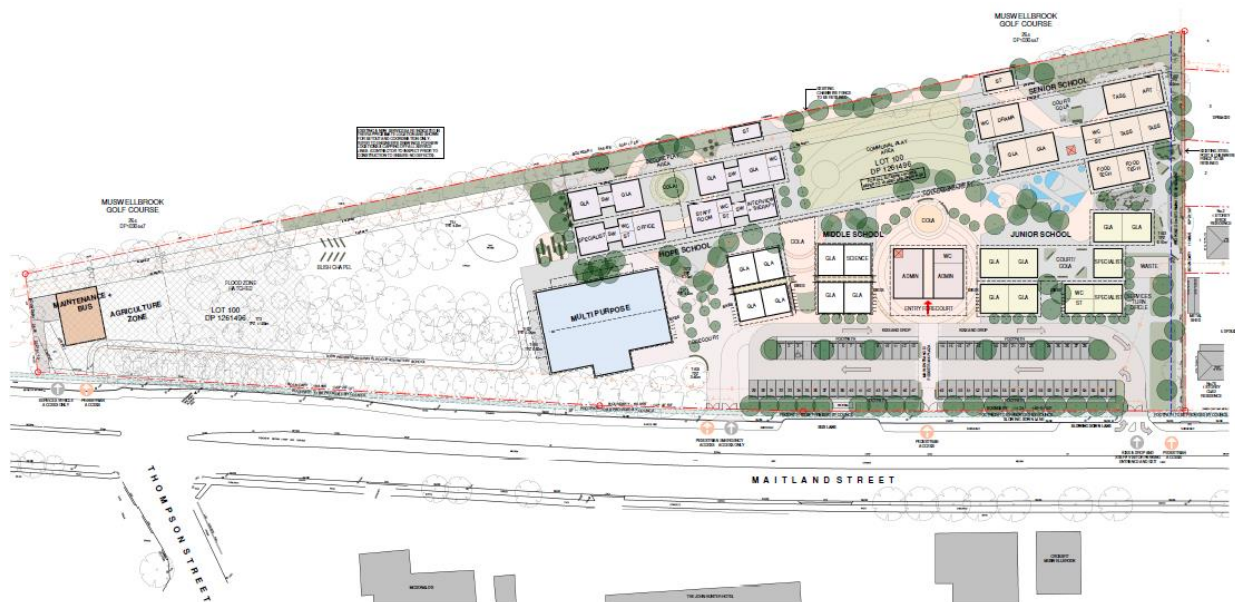


Figure 07: Extract from the site plan showing access

Services – Water, electricity & gas

The site is connected to the reticulated town's water main for its commercial needs. Existing in ground hydrants are available along Maitland Street and surrounding streets for the replenishment of attending fire services.

The existing hydrant network will be extended into the site to service the new buildings.

The hydrant spacing, design, sizing, flows and pressures must comply with AS2419.1-2005. Hydrants are not permitted within the carriageway of any road.

The proposed water supply is considered adequate for the replenishment of attending fire services.

Recommendations will be included to ensure compliance with any new electricity and gas services.

Bushfire Emergency Management Plan

The intent of the Bushfire Emergency Management Plan measure is to provide suitable emergency and evacuation arrangements for occupants of SFPP developments.

This assessment includes a recommendation that a Bushfire Emergency Management Plan be prepared. This recommendation satisfies the acceptable solutions detailed in Table 6.8d of PBP.

7.04 Aim & Objectives

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

Aim / Objective	Comment
<i>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.</i>	With the inclusion of the recommendations made herein it is of our opinion that the aim of PBP has been satisfied.
<i>(i) afford buildings and their occupants protection from exposure to a bush fire;</i>	No bushfire or grassfire hazard was found within the 140 metre assessment area in any direction. The new buildings attract a Bushfire Attack Level of BAL Low under AS3959 – 2018.

Aim / Objective	Comment
<i>(ii) provide for a defensible space to be located around buildings;</i>	No bushfire or grassfire hazard was found within the 140 metre assessment area in any direction. The surrounding managed land and local roads provide a defensible space around all buildings and logical fire fighting platforms for attending fire services.
<i>(iii) provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;</i>	No bushfire or grassfire hazard was found within the 140 metre assessment area in any direction. The existing managed lands surrounding the proposed buildings prevent the likely fire spread.
<i>(iv) ensure that appropriate operational access and egress for emergency service personnel and occupants is available;</i>	Maitland Street provides direct vehicle access to the site. Maitland Street and surrounding roads are serviced by hydrants at regular intervals and would subsequently by the logical fire fighting platforms for attending fire services. The internal road which will be utilised to access the proposed buildings will achieve or exceed the carriageway requirements for non-perimeter roads as detailed in Table 6.8b of PBP.
<i>(v) provide for ongoing management and maintenance of bush fire protection measures, (BPMs); and</i>	The grounds within the subject site are to be maintained in accordance with the NSW Rural Fire Service's document 'Standards for Asset Protection Zones' and Appendix 4 of <i>Planning for Bush Fire Protection</i> 2019. Any new landscaping is to comply with the provisions of Appendix 4 of PBP.

Aim / Objective	Comment
<i>(vi) ensure that utility services are adequate to meet the needs of firefighters.</i>	Existing in ground hydrants are available along Maitland Street and surrounding streets for the replenishment of attending fire services. The existing hydrant network will be extended into the site to service the proposed buildings.

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

8.0 Recommendations

The following recommendations are provided as the minimum necessary for compliance with Planning for Bush Fire Protection – 2019. Additional recommendations are provided to supplement these minimum requirements where considered necessary.

Asset Protection Zones

1. That all grounds not built upon within the subject site shall continue to be maintained as 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.

Emergency Management

2. That a bushfire emergency / evacuation plan be prepared (if already not done so) consistent with the NSW Rural Fire Service Guidelines for the *Preparation of Emergency / Evacuation Plan*.

Services (where applicable)

Water:

3. That the new internal hydrant system is to comply with the requirements detailed in Table 6.8c of Planning for Bush Fire Protection 2019, specifically:
 - fire hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1:2005;
 - hydrants are not located within any road carriageway;
 - fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1:2005.
 - all above-ground water service pipes external to the building are metal, including and up to any taps.
 - 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:

4. 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:

5. 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.

Access

6. That any new access drive to comply with the following requirements for Access as detailed in section 6.8.2 of *Planning for Bush Fire Protection 2019*
 - access roads are two-wheel drive, all-weather roads;
 - traffic management devices are constructed to not prohibit access by emergency services vehicles;
 - one way only public access roads are no less than 3.5 metres wide and have designated parking bays with hydrants located outside of these areas to ensure accessibility to reticulated water for fire suppression
 - 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.
 - minimum 5.5m carriageway width kerb to kerb for two-way roads;
 - parking is provided outside of the carriageway width;
 - hydrants are located clear of parking areas;
 - curves of roads have a minimum inner radius of 6m;
 - the maximum grade road is 15 degrees and average grade of not more than 10 degrees;
 - the road crossfall does not exceed 3 degrees; and
 - a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.

9.0 Conclusion

The development proposal relates to the construction and operation of new school, being a staged K-12 co-educational school including an assisted learning class, at 72-74 Maitland Street, Muswellbrook.

This application is being assessed as a State Significant Development (Application No. SSD_16858710).

Muswellbrook Shire Council's Bushfire Prone Land Map does not identify the subject property as containing either Category 1, 2, or 3 Vegetation or any of the associated buffer zones, therefore the subject site is not Bushfire Prone.

In relation to this application NSW DPE has consulted with the NSW Rural Fire Service (RFS) seeking input regarding the preparation of Secretary's Environmental Assessment Requirements (SEARs).

In response, and regardless of the site not being mapped bushfire prone, the RFS has requested a bush fire assessment report shall be prepared which identifies the extent to which the proposed development conforms with or deviates from the relevant provisions of *Planning for Bush Fire Protection 2019* (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.

It is of our opinion that the proposal satisfies all relevant specifications and requirements of PBP.

We are therefore in support of the development.

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

Prepared by
Building Code & Bushfire Hazard Solutions



Andrew Muirhead

Bushfire Consultant
Diploma of Engineering

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



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



10.0 Annexure 01

List of Referenced Documents

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Acknowledgements to:

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

Attachments

Nil