



Bush Fire Assessment Report

Client: Jorge Diaz

Site Address: 1808 Windeyer Road, Windeyer

21/05/2025

Our Reference: 46937-PR01_A

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Project Name:	Bush Fire Assessment Report for change of use to a dwelling at 1808 Windeyer Road, Windeyer	
Client:	Jorge Diaz	
Project Number:	46397	
Report Reference:	46397-PR01_A	
Date:	21 May 2025	

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1. INTRODUCTION

1.1. Background

This Bush Fire Assessment Report (BFAR) has been prepared to accompany a Development Application (DA) for a change of use from a church to residential dwelling on Lot 231 DP 1142826, known as 1808 Windeyer Road, Windeyer.

1.2. **Proposed Development**

The proposed development involves the change of use from an existing church to a dwelling and associated infrastructure. An existing cemetery is located onsite which will not be impacted. The site plan of the proposed development has been provided in Appendix A of this report.

1.3. Legislative Requirements

1.3.1. **Environmental Planning and Assessment Act 1979**

Consultation and Development Consent – Certain Bush Fire Prone Land

Section 4.14 of the Environmental Planning and Assessment Act 1979 (EP&A Act) requires that development consent for the carrying out of development, other than subdivision of land that could be lawfully used for residential purposes or development for the purpose of a special fire protection purpose, cannot be granted unless the consent authority:

- (a) is satisfied that the development conforms to the specifications and requirements of the version (as prescribed by the regulations) of the document entitled Planning for Bush Fire Protection prepared by the NSW Rural Fire Service in co-operation with the Department (or, if another document is prescribed by the regulations for the purposes of this paragraph, that document) that are relevant to the development (the relevant specifications and requirements), or
- (b) has been provided with a certificate by a person who is recognised by the NSW Rural Fire Service as a qualified consultant in bush fire risk assessment stating that the development conforms to the relevant specifications and requirements.

This report has been prepared to provide the consent authority with sufficient information in order to demonstrate the development complies with the Planning for Bush Fire Protection Guidelines.

Bush Fire Prone Land

The subject site is designated as bush fire prone land, pursuant to Section 10.3 of the EP&A Act. The site is identified as containing Category 1, and 3 Vegetation on the Bush Fire Prone Land Map as shown in Figure 1 below.





Figure 1 – Bush Fire Prone Land Map Source: (NSW Government Spatial Services, 2023)

Planning for Bush Fire Protection

The New South Wales's Rural Fire Service's (RFS) *Planning for Bush Fire Protection 2019* (PBP) applies to all DAs in bush fire prone land. This report has been prepared to address the requirements of PBP as an infill development. Specifically, Section 7 of PBP has been addressed throughout this report.



2. THE SITE & ITS SURROUNDS

2.1. Site Location

The site is located in a rural area located approximately 22.7km south of Mudgee, as shown in Figure 2 below. The site is located in the Oberon Local Government Area.



Figure 2 – Site Location Source: (NSW Government Spatial Services, 2023)

2.2. Site Details

The site is comprised of Lot 231 DP 1142826 and has an overall area of 6,733m². The Deposited Plan is provided in Appendix B of this report.

The site has direct frontage to Windeyer Road, which is a bitumen sealed local road. The site contains an existing church, cemetery, and associated structures, as shown in Figure 3 below.

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Figure 3 – Site Aerial Source: (NearMaps, 2023)



Figure 4 – Zoning Map Source: (NSW Planning & Environment, 2023)



The site is zoned RU5 Village pursuant to the provisions under the Mid-Western Regional Local Environmental Plan 2013 as shown in Figure 4 above. The wider locality is generally zoned RU1 Primary Production lands in the wider locality.

2.3. **Environmental Considerations**

Environmentally Significant Features 2.3.1.

The subject site is not identified as containing any environmentally sensitive features under the LEP mapping.

2.3.2. **Threatened Species, Populations and Ecological Communities**

A Flora and Fauna Assessment has not been carried out for the proposal as there are minimal works and no significant habitat (both flora and fauna) required to be removed. As such, it is considered that the proposal would not have a significant impact on any listed species, populations or ecological communities listed under the NSW Threatened Species Conservation Act 1995 or Commonwealth Environment Protection and Biodiversity Conservation Act 1999.

2.3.3. Indigenous Heritage

An Aboriginal Heritage Information Management System (AHIMS) Search was undertaken for the site. No items of indigenous heritage have been listed as being recorded or identified on the site.



3. BUSH FIRE ASSESSMENT

3.1. Methodology

The methodology utilised for the bush fire assessment is outlined in A1.1 of the PBP. The following provides the required information in accordance with the methodology.

3.2. Bush Fire Fuels

Pursuant to Appendix 1 of PBP, all vegetation within 140m of the site (assessment area) has been classified in accordance with *Ocean Shores to Desert Dunes* (Keith, 2004) and Figure 2.3 of AS3959. The vegetation within the assessment area has been mapped and is shown in Figure 5 below. Photographs of the vegetation from the site inspection carried out on 05 April 2023 are provided in the following plates for each assessment plot.



Figure 5 – Vegetation Classification



Plot 1

Existing Classification:	Managed Land
Post Development Classification:	Managed Land

Description:

Area within the site's boundaries including the church and the cemetery, and surrounding road network. Site will continue to be managed.



Plate 1 – Plot 1

Plate 2 – Plot 1

Plot 2

Existing Classification:	Managed Land
Post Development Classification:	Managed Land
Description:	Property to the north which consists of a dwelling and mowed grasses.



Plate 3 – Plot 2





Plot 3

Existing Classification:

Post Development Classification:

Description:

A group of trees that bound both the site and Windgraves Road.





Plate 5 – Plot 3

Plate 6 – Plot 3

Plot 4

Description:

Existing Classification:

Post Development Classification:

iopinent Classi

Managed land/grassland

Managed land/grassland

Woodland

Woodland

Neighbouring property on the southern side of Windgraves Road.







Plate 7 – Plot 4

Plate 8 – Plot 4

Plot 5

Existing Classification:

Post Development Classification:

Description:

Property on the eastern side of Windeyer Road. A paddock that seems to be used for horses or the like. In this case it is somewhat managed.



Grassland

Grassland

Plate 9 – Plot 5

Plate 10 – Plot 5

3.3. Topography

The topography for the site and within 100m of the site is shown in Figure 6. Pursuant to Appendix 1.4 of PBP, contour data has been sourced from the NSW Spatial Information Exchange Mapping system. The contour data was verified by ground truthing during the site inspection.





Figure 6 – Topography Source: (NSW Government Spatial Services, 2023)

3.4. Fire Weather Area

The subject site is located within the Mid-Western LGA. Pursuant to Table A1.6 of the PBP, the relevant Forest Fire Danger Index (FFDI) for the site is 80.

3.5. Asset Protection Zone Determination

The relevant Asset Protection Zones (APZ) are to be determined based on Table A1.12.3 of PBP. Accordingly, an assessment is provided in Table 1 below for the proposed change of use to support a dwelling.

Table 1 – Asset Protection	Zone Determination
----------------------------	---------------------------

Plot	Vegetation Class	Effective Slope	APZ
1	Managed Land	Upslope	N/A*
2	Managed Land	Upslope	N/A*
3	Woodland	Upslope	11m
4	Managed Land/Grassland	Undulating/Upslope	10m



5	Managed Land/Grassland	Downslope 0-5°	11m

*Refer to Page 112 of PBP 2019 for requirement for Managed Land.

The worst case APZ required is 11m. Plot 1 and Plot 2 are considered managed land, thus not applicable.

3.6. Bushfire Attack Level Assessment

The Bushfire Attack Level (BAL) assessment has been determined as per Table A1.12.6 of PBP. The inputs used in the calculation of the BAL are outlined in Table 2 below.

Table 2 – BAL Inputs

Requirement	Input Used
Relevant FDI (table 2.1 of AS3959)	80
Classified vegetation	As per Section 3.2 of this report, Keith (2004) and Figure 2.3 of AS3959.
Separation Distance	As provided below.
Effective Slope	As per Table 1.

Using the inputs outlined above, the BAL has been calculated for each of the Plots identified in Section 3.2.

Table 3 – Bushfire Attack Levels

Plot	Vegetation Class	Separation Distance to bushfire threat	Effective Slope	BAL
1	Managed Land	N/A	Upslope	N/A
2	Managed Land	N/A	Upslope	N/A
3	Woodland	18m	Upslope	BAL-19
4	Managed Land/Grassland	30m	Undulating/Upslope	BAL-12.5



5	Managed Land/Grassland	50m	Downslope 0-5°	BAL-12.5
Worst	Case BAL			BAL-19

As shown above, the worst-case BAL is BAL-19. The relevant construction standards for BAL-19 are outlined in Sections 3 and 6 of AS3959.



4. **BUSH FIRE PROTECTION MEASURES**

4.1. Introduction

The proposed development, being an infill development, is required to comply with the Bush Fire Protection Measures (BFPMs) outlined in Section 7.4 of PBP. There are eight key BFPMs outlined by PBP for infill development:

- Asset Protection Zones;
- Access;
- Water Supplies;
- Electricity services;
- Gas services;
- Construction standards;
- Landscaping; and
- Emergency management.

The relevant BFPMs are addressed throughout Section 4 of this report.

4.2. Aims and Objectives of PBP

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.

The objectives of PBP are to:

afford buildings and their occupants protection from exposure to a bush fire;

- provide for a defendable space to be located around buildings;
- provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;
- ensure that appropriate operational access and egress for emergency service personnel and occupants is available;
- provide for ongoing management and maintenance of BPMs;
- and ensure that utility services are adequate to meet the needs of firefighters.

The proposal has considered radiant heat levels of less than 29kW/m² to avoid flame contact, that would provide for appropriate separation to the hazards. The development in conjunction with the bush fire protection measures will provide for safe operational access and egress for emergency services personnel and residents, as well as sufficient water supply. Therefore, the proposed development is considered to be consistent with the objectives of PBP.



4.3. Objectives for Infill Development

Section 7.3 of PBP contains the specific objectives for infill development:

- Provide a defendable space to enable unimpeded access for firefighting around the building;
- Provide better bush fire outcomes on a redevelopment site than currently exists, commensurate with the scale of works proposed;
- Design and construct buildings commensurate with the bush fire risk;
- Provide access, services and landscaping to aid firefighting operations;
- Not impose an increased bush fire management and maintenance responsibility on adjoining land owners; and
- Increase the level of bush fire protection to existing dwellings based on the scale of the proposed work and level of bush fire risk.

In complying with the BFPMs, the proposed development complies with objectives for infill development, as outlined above.

4.4. Asset Protection Zones

The following table outlines the Performance Criteria and associated Acceptable Solutions for the APZ BFPM in accordance with Table 7.4a of PBP.

Performance Criteria	Acceptable Solution/Comment	Compliance
APZs are provided commensurate with the construction of the building; and A defendable space is provided.	An Asset Protection Zone of 11m shall be established around the building, and shall be established in accordance with Appendix 1 of PBP.	✓
APZs are managed and maintained to prevent the spread of a fire to the building.	The APZ shall be managed in accordance with Appendix 4 of PBP.	✓
The APZ is provided in perpetuity. APZ	The APZ shall be provided in perpetuity of the proposed dwelling and is completely within the boundaries of the site.	√

Table 4 Asset Protection Zones



maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised.

4.5. Access Standards

The following table outlines the Performance Criteria and associated Acceptable Solutions for Access in accordance with Table 7.4a of PBP.

Table 5 /	Access
-----------	--------

Performance Criteria	Acceptable Solution/Comment	Compliance
Firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation.	A new driveway shall be established via an existing gate consisting of a two-wheel drive, all weather access road, suitable for providing fire vehicles with access to and from the site.	✓
The capacity of access roads is adequate for firefighting vehicles.	The capacity of the proposed driveway shall be sufficient to carry fully loaded firefighting vehicles up to 23 tonnes. No bridges or causeways are required.	✓
There is appropriate access to water supply.	It is recommended that the proposed rainwater tanks are a minimum of 10,000L (or at least 10,000L of storage) in a metal or concrete tank be installed on the site to be entirely dedicated for bush fire protection.	✓
Firefighting vehicles can access the dwelling and exit the property safely.	 It is recommended that the following be implemented for the proposed access driveway: The access has an established minimum carriage width of 4m, which includes a 4m vertical clearance to any overhanging obstructions (i.e. tree branches); 	✓



- A suitable turning area is provided in accordance with Appendix 3 of PBP 2019; and
- The APZ is to be managed to ensure vehicles can access the site without any obstructions.

4.6. Water Supplies

The following table outlines the Performance Criteria and associated Acceptable Solutions for Water supply in accordance with Table 7.4a of PBP.

Table (6 Water	Supply
---------	---------	--------

Performance Criteria	Acceptable Solution/Comment	Compliance
An adequate water supply is provided for firefighting purposes.	It is recommended that at least 10,000L of rainwater storage is provided on the site to be entirely dedicated for bush fire protection.	✓
water supplies are located at regular intervals; and the water supply is accessible and reliable for firefighting operations.	The water supply is easily accessible for fire fighting vehicles.	✓
Flows and pressure are appropriate.	Not applicable.	N/A
The integrity of the water supply is maintained.	All above-ground water service pipes including taps etc shall be constructed of metal material.	✓
A static water supply is provided for firefighting purposes in areas where reticulated	 The development complies with this part, as follows: Table 5.3d of PBP requires rural/residential lots to have 10,000L of rainwater storage. The site requires the construction of a steel or concrete rainwater tank (in 	✓



water supply is
not available.order to comply with PBP), which shall be dedicated for
firefighting purposes only;

- The firefighting connection is located away from the structure and shall consist of a 65mm Storz outlet with ball valve fitted;
- The ball valve and pipes are to be metal and shall provide adequate water flow;
- A hardened access driveway is provided to the tank;
- The tank is to be constructed of metal;
- Unobstructed access to the tank shall be provided; and
- All exposed water pipes and fittings external to the building are to be metal material.

4.7. Electricity and Gas Services

The following table outlines the Performance Criteria and associated Acceptable Solutions for the Electricity and Gas Services in accordance with Table 7.4a of PBP.

Performance Criteria	Acceptable Solution/Comment	Compliance
Location of electricity services limited the possibility of ignition of surrounding bush land or the fabric of buildings.	Vegetation around existing transmission lines are to be maintained in accordance with the specifications in <i>ISSC3</i> <i>Guideline for Managing Vegetation Near Powerlines</i> .	✓
Location and design of gas	Should gas be incorporated, the following recommendations are provided:	\checkmark
services will not lead to ignition of surrounding	 Installed and maintained in accordance with AS/NZS 1596:2004 with metal piping used; 	
bushland or the fabric of	 All fixed cylinders are to be kept clear of flammable materials to a distance of 10m; 	
buildings.	All connections to be metal construction.	

Table 7 Electricity and Gas Services



4.8. Construction Standards

The following table outlines the Performance Criteria and associated Acceptable Solutions for Construction Standards in accordance with Table 7.4a of PBP.

Performance Criteria	Acceptable Solution/Comment	Compliance
The proposed building can withstand bush fire attack in the form of embers, radiant heat and flame contact.	As detailed in Section 3.6, the worst case and therefore the applicable BAL for the proposed development is BAL-19. Compliance is to be achieved with the NCC and AS3959.	✓
Proposed fences and gates are designed to minimise the spread of bush fire.	Any proposed fencing or gates shall be constructed of metal material.	✓
Proposed Class 10a buildings are designed to minimise the spread of bush fire.	Any proposed Class 10a buildings within 6m of the dwelling shall be constructed in accordance with Section 8.3.2 of PBP.	✓

Table 8 Construction Standards

4.9. Landscaping

The following table outlines the Performance Criteria and associated Acceptable Solutions for Landscaping in accordance with Table 7.4a of PBP.

Table 9 Landscaping

Performance	Acceptable Solution/Comment	Compliance
Criteria		



√

Landscaping is The applied APZs shall be established and maintained in designed and accordance with Appendix 4 and the applicable Asset managed to Protection Zone Standards. minimise flame There shall be no branches overhanging the roof and new contact and plantings shall be established to ensure that there are no radiant heat to continuous tree canopies. buildings, and the potential for winddriven embers to cause ignitions.

4.10. Emergency Management

PBP does not provide any specific Emergency Management Arrangement requirements for residential developments. Nevertheless, it is strongly recommended that a Bush Fire Survival Plan be prepared by the residents of the property in accordance with the NSW RFS' guidelines located on the following webpage http://www.rfs.nsw.gov.au/resources/bush-fire-survival-plan.



5. **RECOMMENDATIONS**

The assessment of the proposed development carried out in this report has assumed the development will be carried out in accordance with a number of bush fire protection measures (BFPMs). The following provides a summary of the recommended BFPMs that must be incorporated into the development to ensure it best protects the development from the effects of bushfire in accordance with the requirements of PBP and other best practice guidelines.

- Asset Protection Zone/Defendable Space:
 - The following Areas are to be managed as APZs in accordance with the guidelines provided in Appendix C:
 - North 11m
 - East 11m
 - South 11m;
 - West 11m.
- Construction Standards:
 - The structure shall be upgraded in accordance with BAL-19 standards under AS395-2009;
 - Any future ancillary Class 10 buildings are to be sited more than 6m from the proposed dwelling. Any Class 10a building constructed within 6m of the proposed dwelling shall be constructed in accordance with the relevant BAL.
- Access
 - New access roads (driveways) are to be two-wheel drive, all-weather roads;
 - A minimum carriage with of 4m is required with a vertical clearance of 4m to any overhanging obstructions (i.e. branches);
 - Access roads (driveways) shall not prohibit access by emergency vehicles;
 - Driveways are to have the capacity to carry fully loaded firefighting vehicles up to 23 tonnes;
 - The Asset Protection Zone is to be managed/unobstructed to ensure trucks to be able to manoeuvre to and from the site easily. Access to the water tanks shall be kept clear.
 - The existing access road to the existing dwelling shall continue to be maintained in accordance with the requirements under PBP 2019
- Services
 - Water:
 - The dwelling shall be afforded with at least 10,000L of rainwater storage to be retained at all times for firefighting purposes. The tank in which this water is to be stored is required to be constructed of steel (or concrete). This tank shall be dedicated for firefighting purposes only;
 - The tank is to be provided with connections for firefighting purposes including a 65mm Storz outlet with gate/ball value;
 - Valves and pipes are to be metal and adequate for water flow;
 - All above ground pipes and taps are to be metal; and
 - Pumps are to be shielded.
 - Electricity:
 - Vegetation around existing/proposed transmission lines are to be maintained in accordance with the specifications in ISSC3 Guideline for Managing Vegetation Near Powerlines.
 - Gas:



- Any proposed gas bottles shall be installed and maintained in accordance with AS/NZS 1596:2004 with metal piping used;
- All fixed cylinders are to be kept clear of flammable materials to a distance of 10m (or appropriately shielded);
- All connections are to be of metal construction.
- Emergency Evacuation Plans
 - Preparation of a Bush Fire Survival Plan for the proposed dwelling, in accordance with RFS requirements
 - If the existing dwelling does not have an existing Bush Fire Survival Plan, one is to be prepared in accordance with RFS Requirements



6. CONCLUSION

The construction of the proposed dwelling will ensure that the habitable development is located in an area that has a low to moderate bushfire hazard level. With the implementation of the recommendations, as outlined in Section 5 and identified throughout this report, the proposed development is considered to be appropriately protected from bushfire and complies with the requirements of PBP. The proposal development is not expected to increase the bushfire risk on the site.



7. **REFERENCES**

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APPENDIX A Development Plans



PROPOSED CHANGE OF USE

1808 WINDEYER ROAD, WINDEYER, NSW 2850



LOCALITY PLAN.



1808 Windeyer Road NSW 2850

DRAWING SCHEDULE.

- 01 COVER SHEET SAFE DESIGN OF STRUCTURES 02 03 SITE PLAN
- GENERAL NOTES.
- AS2890
- terior lighting eferred to 'Barnson Pty Ltd' for a decision before proceeding with the work.



PROPOSED CHANGE OF USE

Lot 231, DP 1142826

REV B DATED 02.05.2025 REV B DATED 02.05.2025 REV B DATED 02.05.2025

In addition to the National Construction Code series, Building Code of Australia Vol. 2, 2022, the Plumbing Code of Australia, 2022 & the building regulations applicable to the state of New South Wales, the following applicable Australian Standards & codes of practice are to be adhered to through the documentation & construction works;

Mechanical ventilation & air conditioning in Buildings Electrical installations; buildings, structures & premises (known as the saa wiring rules) Dn-street parking; mandatory requirements

These drawings shall be read in conjunction with all architectural & other consultants drawings & specifications & with such other written instructions as may be issued during the course of the contract. All discrepancies shall be

All dimensions are in millimetres unless stated otherwise & levels are expressed in metres. Figured dimensions are to be taken in preference to scaled dimensions unless otherwise stated. All dimensions are nominal, and those elevant to setting out & off-site work shall be verified by the contractor before construction & fabrication.



46937



SAFE DESIGN OF STRUCTURES NOTES.

FALLS, SLIPS & TRIPS

FALLING OBJECTS

FIRE & EMERGENCIES

TRAFFIC MANAGEMENT

SERVICES

STRUCTURAL SAFETY

BARNSON PTY LTD

CONSULTANTS DRAWINGS APPLICABLE TO THIS PROJECT. ALL DIMENSIONS IN MILLIMETRES. DO NOT SCALE. DIMENSIONS TO BE CHECKED ON SITE BEFORE COMMENCEMENT OF WORK. REPORT DISCREPANCIES TO BARNSON PTY LTD. NO PART OF THIS DRAWING MAY BE REPRODUCED IN ANY WAY WITHOUT THE WRITTEN PERMISSION OF BARNSON PTY LTD.

MANUAL TASKS

PUBLIC ACCESS

MOVEMENT OF PEOPLE & MATERIALS



EARTHWORKS

CONFINED SPACES

HAZARDOUS SUBSTANCES

OTHER HIGH RISK ACTIVITY

CONSTRUCTION NOTES.

GENERAL

Termite risk management is to be installed to ensure Class 1 to have 50 year design life by compliance with AS3660.1 Termite Management & the ABCB Housing Provisions, Part 3.4. Method of termite risk management is to be permanently fixed to the building in a prominent location, such as in a meter box or the like in accordance with ABCB Housing Provisions, Part 3.4.3.

PLUMBIN

Water temperature to all outlets (except laundry & kitchen) not to exceed 50°c.

The top of the buildings overflow relief gully shall be: - a min. 150mm below the lowest sanitary fixture in the bldg. &- a min. Of 75mm above the surrounding finished surface level.

& Drainage 2006 & AS/NZS3500.

determined on site.

WATERPROOFIN

AS3470:2021.

weather or ground moisture rising through the substructure in accordance with AS1684.3:2021.

ELECTRICAL

is recommended that all electrical services be located 200mm minimum above FFL.

Provide safety switches for all lighting & electrical equipment.

All external lights are to be sheilded.

PROPOSED CHANGE OF USE

Roof water to be collected by eaves gutter & discharged to downpipes thru 100mm dia. subsoil charged PVC pipes to tanks underground positioned by client, overflow via. 100mm dia. subsoil PVC pipes at min. 1% fall to to street.

All plumbing works are to be in accordance with the NCC, Vol. 3, Plumbing Code of Australia, the New South Wales Code of Practice for Plumbing

Roof water to be collected by eaves gutter & discharged to downpipes thru subsoil PVC pipes to tanks positioned by client, overflow to be

All wet areas waterproofing is to comply with AS3740:2021 - Waterproofing of wet areas within residential buildings.

All waterproofing materials & system components are to be installed according to manufacturer's installation instructions & material compatibility is to be checked by the builder prior to use. Waterproofing system is to allow for creep, expansion & contraction of substrate in accordance with

Weatherproofing of walls with flashings & damp proof course during construction should provide protection to floor framing members from the

All electrical wiring & electrical installations are to comply with AS/NZS3000:2018 Wiring rules.

AS/NZS3000:2018 requires no electrical socket outlets, switches or electrical accessories to be installed within 300mm from a wet place, therefore, it

Exhaust fans & rangehoods are to be vented directly outside & not into the roof cavity.

Air conditioning units are to meet the relevant MEPS of AS/NZS3823.1, AS/NZS3823.2 or AS/NZS3823.3-2012 for both single & three phase. When the manufacturer's installation instructions exclude clearances for recessed lights, refer to default dimensions from AS/NZS3000:2018.



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SITE NOTES.

GENERAL

DRAINAGE

PROPOSED CHANGE OF USE

SITE PLAN

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PROPOSED CHANGE OF USE



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DEMOLITION NOTES.

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Drawing Title. FLOOR PLAN







address. Suite 8, 11 White Street Tamworth NSW 2340 phone. 1300 BARNSON (1300 227 676) email. generalenquiry@barnson.com.au web. barnson.com.au

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PROPOSED CHANGE OF USE

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APPENDIX B Deposited Plan

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e-departmental
DP 1142826
Registered: (25.8.2009
Title System: OLD SYSTEM
Purpose: LIMITED FOLIO CREATION
Ref. Map: TOWN WINDEYER
Last Plan: 3.1684
C.A. 140057
PLAN OF LAND COMPRISED IN
SER 162 PAGE 683 BEING THE RESIDUE
POR 23 EX LAND LOT 1 DP199708
engths are in metres. Reduction Ratio - NTS
Sheet 1 of 1 sheet
L.G.A.: MID-WESTERN REGIONAL
LOCALITY: WINDEYER
PARISH: WINDEYER (51)
COUNTY: WELLINGTON
THIS PLAN WAS PREPARED SOLELY TO
IDENTIFY THE LAND IN THE ABOVE DEED AND THE BOUNDARIES HAVE NOT BEEN
INVESTIGATED BY THE REGISTRAR GENERAL
THIS PLAN IS NOT A CURRENT PLAN IN TERMS OF
S.7A CONVEYANCING ACT 1919.
PLAN COMPILED FROM 3.1684 & DP199708



APPENDIX C APZ Requirements

standards

for asset protection zones

firewisefi



STANDARDS FOR ASSET PROTECTION ZONES

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PLANTS FOR BUSH FIRE PRONE GARDENS
WIND BREAKS

INTRODUCTION

For thousands of years bush fires have been a natural part of the Australian landscape. They are inevitable and essential, as many Australian plants and animals have adapted to fire as part of their life cycle.

In recent years developments in bushland areas have increased the risk of bush fires harming people and their homes and property. But landowners can significantly reduce the impact of bush fires on their property by identifying and minimising bush fire hazards. There are a number of ways to reduce the level of hazard to your property, but one of the most important is the creation and maintenance of an Asset Protection Zone (APZ).

A well located and maintained APZ should be used in conjunction with other preparations such as good property maintenance, appropriate building materials and developing a family action plan.

WHAT IS AN ASSET PROTECTION ZONE?

An Asset Protection Zone (APZ) is a fuel reduced area surrounding a built asset or structure. This can include any residential building or major building such as farm and machinery sheds, or industrial, commercial or heritage buildings.

An APZ provides:

- a buffer zone between a bush fire hazard and an asset;
- an area of reduced bush fire fuel that allows suppression of fire;
- an area from which backburning may be conducted; and
- an area which allows emergency services access and provides a relatively safe area for firefighters and home owners to defend their property.

Potential bush fire fuels should be minimised within an APZ. This is so that the vegetation within the planned zone does not provide a path for the transfer of fire to the asset either from the ground level or through the tree canopy.

WHAT WILL THE APZ DO?

An APZ, if designed correctly and maintained regularly, will reduce the risk of:

- direct flame contact on the asset;
- damage to the built asset from intense radiant heat; and
- ember attack on the asset.

WHERE SHOULD I PUT AN APZ?

An APZ is located between an asset and a bush fire hazard.

The APZ should be located wholly within your land. You cannot undertake any clearing of vegetation on a neighbour's property, including National Park estate, Crown land or land under the management of your local council, unless you have written approval.

If you believe that the land adjacent to your property is a bush fire hazard and should be part of an APZ, you can have the matter investigated by contacting the NSW Rural Fire Service (RFS).

There are six steps to creating and maintaining an APZ. These are:

- 1. Determine if an APZ is required;
- 2. Determine what approvals are required for constructing your APZ;
- 3. Determine the APZ width required;
- 4. Determine what hazard reduction method is required to reduce bush fire fuel in your APZ;
- 5. Take measures to prevent soil erosion in your APZ; and
- 6. Landscape and regularly monitor in your APZ for fuel regrowth.

STEP 1. DETERMINE IF AN APZ IS REQUIRED

Recognising that a bush fire hazard exists is the first step in developing an APZ for your property.

If you have vegetation close to your asset and you live in a bush fire prone or high risk area, you should consider creating and maintaining an APZ.

Generally, the more flammable and dense the vegetation, the greater the hazard will be. However, the hazard potential is also influenced by factors such as slope.

- A large area of continuous vegetation on sloping land may increase the potential bush fire hazard.
- The amount of vegetation around a house will influence the intensity and severity of a bush fire.
- The higher the available fuel the more intense a fire will be.



Isolated areas of vegetation are generally not a bush fire hazard, as they are not large enough to produce fire of an intensity that will threaten dwellings.

This includes:

- bushland areas of less than one hectare that are isolated from large bushland areas; and
- narrow strips of vegetation along road and river corridors.

If you are not sure if there is a bush fire hazard in or around your property, contact your local NSW Rural Fire Service Fire Control Centre or your local council for advice.

STEP 2. DETERMINE WHAT APPROVALS ARE REQUIRED FOR CONSTRUCTING YOUR APZ

If you intend to undertake bush fire hazard reduction works to create or maintain an APZ you must gain the written consent of the landowner.

Subdivided land or construction of a new dwelling

If you are constructing an APZ for a new dwelling you will need to comply with the requirements in *Planning for Bushfire Protection*. Any approvals required will have to be obtained as part of the Development Application process.

Existing asset

If you wish to create or maintain an APZ for an existing structure you may need to obtain an environmental approval. The RFS offers a free environmental assessment and certificate issuing service for essential hazard reduction works. For more information see the RFS document *Application Instructions for a Bush Fire Hazard Reduction Certificate* or contact your local RFS Fire Control Centre to determine if you can use this approval process.

Bear in mind that all work undertaken must be consistent with any existing land management agreements (e.g. a conservation agreement, or property vegetation plan) entered into by the property owner.

If your current development consent provides for an APZ, you do not need further approvals for works that are consistent with this consent.

If you intend to burn off to reduce fuel levels on your property you may also need to obtain a Fire Permit through the RFS or NSW Fire Brigades. See the RFS document *Before You Light That Fire* for an explanation of when a permit is required.

STEP 3. DETERMINE THE APZ WIDTH

The size of the APZ required around your asset depends on the nature of the asset, the slope of the area, the type and structure of nearby vegetation and whether the vegetation is managed.

Fires burn faster uphill than downhill, so the APZ will need to be larger if the hazard is downslope of the asset.



Gentle slopes require a smaller APZ distance than steep slopes



A hazard downslope will require a greater APZ distance then a hazard upslope of the asset

Different types of vegetation (for example, forests, rainforests, woodlands, grasslands) behave differently during a bush fire. For example, a forest with shrubby understorey is likely to result in a higher intensity fire than a woodland with a grassy understorey and would therefore require a greater APZ width.

A key benefit of an APZ is that it reduces radiant heat and the potential for direct flame contact on homes and other buildings. Residential dwellings require a wider APZ than sheds or stockyards because the dwelling is more likely to be used as a refuge during bush fire.

Subdivided land or construction of a new dwelling

If you are constructing a new asset, the principles of *Planning for Bushfire Protection* should be applied. Your Development Application approval will detail the exact APZ distance required.

Existing asset

If you wish to create an APZ around an existing asset and you require environmental approval, the Bush Fire Environmental Assessment Code provides a streamlined assessment process. Your Bush Fire Hazard Reduction Certificate (or alternate environmental approval) will specify the maximum APZ width allowed.

For further information on APZ widths see *Planning for Bushfire Protection* or the *Bush Fire Environmental Assessment Code* (available on the RFS website), or contact your local RFS Fire Control Centre.

STEP 4. DETERMINE WHAT HAZARD REDUCTION METHOD IS REQUIRED TO REDUCE BUSH FIRE FUEL IN YOUR APZ

The intensity of bush fires can be greatly reduced where there is little to no available fuel for burning. In order to control bush fire fuels you can reduce, remove or change the state of the fuel through several means.

Reduction of fuel does not require removal of all vegetation, which would cause environmental damage. Also, trees and plants can provide you with some bush fire protection from strong winds, intense heat and flying embers (by filtering embers) and changing wind patterns. Some ground cover is also needed to prevent soil erosion.

Fuels can be controlled by:

1. raking or manual removal of fine fuels

Ground fuels such as fallen leaves, twigs (less than 6 mm in diameter) and bark should be removed on a regular basis. This is fuel that burns quickly and increases the intensity of a fire.

Fine fuels can be removed by hand or with tools such as rakes, hoes and shovels.

2. mowing or grazing of grass

Grass needs to be kept short and, where possible, green.

3. removal or pruning of trees, shrubs and understorey

The control of existing vegetation involves both selective fuel reduction (removal, thinning and pruning) and the retention of vegetation.

Prune or remove trees so that you do not have a continuous tree canopy leading from the hazard to the asset. Separate tree crowns by two to five metres. A canopy should not overhang within two to five metres of a dwelling.

Native trees and shrubs should be retained as clumps or islands and should maintain a covering of no more than 20% of the area.

When choosing plants for removal, the following basic rules should be followed:

- Remove noxious and environmental weeds first. Your local council can provide you with a list of environmental weeds or 'undesirable species'. Alternatively, a list of noxious weeds can be obtained at www.agric.nsw.gov.au/ noxweed/;
- 2. Remove more flammable species such as those with rough, flaky or stringy bark; and
- 3 Remove or thin understorey plants, trees and shrubs less than three metres in height

The removal of significant native species should be avoided.

Prune in acordance with the following standards:

- Use sharp tools. These will enable clean cuts and will minimise damage to the tree.
- Decide which branches are to be removed before commencing work. Ensure that you maintain a balanced, natural distribution of foliage and branches.
- Remove only what is necessary.
- Cut branches just beyond bark ridges, leaving a small scar.
- Remove smaller branches and deadwood first.



There are three primary methods of pruning trees in APZs:

1. Crown lifting (skirting)

Remove the lowest branches (up to two metres from the ground). Crown lifting may inhibit the transfer of fire between the ground fuel and the tree canopy.

2. Thinning

Remove smaller secondary branches whilst retaining the main structural branches of the tree. Thinning may minimise the intensity of a fire.

3. Selective pruning

Remove branches that are specifically identified as creating a bush fire hazard (such as those overhanging assets or those which create a continuous tree canopy). Selective pruning can be used to prevent direct flame contact between trees and assets.

Your Bush Fire Hazard Reduction Certificate or local council may restrict the amount or method of pruning allowed in your APZ.

See the *Australian Standard 4373 (Pruning of Amenity Trees*) for more information on tree pruning.

4. Slashing and trittering

Slashing and trittering are economical methods of fuel reduction for large APZs that have good access. However, these methods may leave large amounts of slashed fuels (grass clippings etc) which, when dry, may become a fire hazard. For slashing or trittering to be effective, the cut material must be removed or allowed to decompose well before summer starts.

If clippings are removed, dispose of them in a green waste bin if available or compost on site (dumping clippings in the bush is illegal and it increases the bush fire hazard on your or your neighbour's property).

Although slashing and trittering are effective in inhibiting the growth of weeds, it is preferable that weeds are completely removed.

Care must be taken not to leave sharp stakes and stumps that may be a safety hazard.

5. Ploughing and grading

Ploughing and grading can produce effective firebreaks. However, in areas where this method is applied, frequent maintenance may be required to minimise the potential for erosion. Loose soil from ploughed or graded ground may erode in steep areas, particularly where there is high rainfall and strong winds.

6. Burning (hazard reduction burning)

Hazard reduction burning is a method of removing ground litter and fine fuels by fire. Hazard reduction burning of vegetation is often used by land management agencies for broad area bush fire control, or to provide a fuel reduced buffer around urban areas.

Any hazard reduction burning, including pile burns, must be planned carefully and carried out with extreme caution under correct weather conditions. Otherwise there is a real danger that the fire will become out of control. More bush fires result from escaped burning off work than from any other single cause.

It is YOUR responsibility to contain any fire lit on your property. If the fire escapes your property boundaries you may be liable for the damage it causes.

Hazard reduction burns must therefore be carefully planned to ensure that they are safe, controlled, effective and environmentally sound. There are many factors that need to be considered in a burn plan. These include smoke control, scorch height, frequency of burning and cut off points (or control lines) for the fire. For further information see the RFS document *Standards for Low Intensity Bush Fire Hazard Reduction Burning*, or contact your local RFS for advice.

7. Burning (pile burning)

In some cases, where fuel removal is impractical due to the terrain, or where material cannot be disposed of by the normal garbage collection or composted on site, you may use pile burning to dispose of material that has been removed in creating or maintaining an APZ.

For further information on pile burning, see the RFS document *Standards for Pile Burning.*

In areas where smoke regulations control burning in the open, you will need to obtain a Bush Fire Hazard Reduction Certificate or written approval from Council for burning. During the bush fire danger period a Fire Permit will also be required. See the RFS document *Before You Light that Fire* for further details.

STEP 5. TAKE MEASURES TO PREVENT SOIL EROSION

While the removal of fuel is necessary to reduce a bush fire hazard, you also need to consider soil stability, particularly on sloping areas.

Soil erosion can greatly reduce the quality of your land through:

- loss of top soil, nutrients, vegetation and seeds
- reduced soil structure, stability and quality
- blocking and polluting water courses and drainage lines •

A small amount of ground cover can greatly improve soil stability and does not constitute a significant bush fire hazard. Ground cover includes any material which directly covers the soil surface such as vegetation, twigs, leaf litter, clippings or rocks. A permanent ground cover should be established (for example, short grass). This will provide an area that is easy to maintain and prevent soil erosion.

When using mechanical hazard reduction methods, you should retain a ground cover of at least 75% to prevent soil erosion. However, if your area is particularly susceptible to soil erosion, your Hazard Reduction Certificate may require that 90% ground cover be retained.



50%



Ground Cover

To reduce the incidence of soil erosion caused by the use of heavy machinery such as ploughs, dozers and graders, machinery must be used parallel to the contours. Vegetation should be allowed to regenerate, but be managed to maintain a low fuel load.



STEP 6. ONGOING MANAGEMENT AND LANDSCAPING

Your home and garden can blend with the natural environment and be landscaped to minimise the impact of fire at the same time. To provide an effective APZ, you need to plan the layout of your garden to include features such as fire resistant plants, radiant heat barriers and windbreaks.

Layout of gardens in an APZ

When creating and maintaining a garden that is part of an APZ you should:

- ensure that vegetation does not provide a continuous path to the house;
- remove all noxious and environmental weeds;
- plant or clear vegetation into clumps rather than continuous rows;
- prune low branches two metres from the ground to prevent a ground fire from spreading into trees;
- locate vegetation far enough away from the asset so that plants will not ignite the asset by direct flame contact or radiant heat emission;
- plant and maintain short green grass around the house as this will slow the fire and reduce fire intensity. Alternatively, provide non-flammable pathways directly around the dwelling;
- ensure that shrubs and other plants do not directly abut the dwelling. Where this does occur, gardens should contain low-flammability plants and non flammable ground cover such as pebbles and crush tile; and
- avoid erecting brush type fencing and planting "pencil pine" type trees next to buildings, as these are highly flammable.



Removal of other materials

Woodpiles, wooden sheds, combustible material, storage areas, large quantities of garden mulch, stacked flammable building materials etc. should be located away from the house. These items should preferably be located in a designated cleared location with no direct contact with bush fire hazard vegetation.

Other protective features

You can also take advantage of existing or proposed protective features such as fire trails, gravel paths, rows of trees, dams, creeks, swimming pools, tennis courts and vegetable gardens as part of the property's APZ.

PLANTS FOR BUSH FIRE PRONE GARDENS

When designing your garden it is important to consider the type of plant species and their flammability as well as their placement and arrangement.

Given the right conditions, all plants will burn. However, some plants are less flammable than others.

Trees with loose, fibrous or stringy bark should be avoided. These trees can easily ignite and encourage the ground fire to spread up to, and then through, the crown of the trees.

Plants that are less flammable, have the following features:

- high moisture content
- high levels of salt
- low volatile oil content of leaves
- smooth barks without "ribbons" hanging from branches or trunks; and
- dense crown and elevated branches.

When choosing less flammable plants, be sure not to introduce noxious or environmental weed species into your garden that can cause greater long-term environmental damage.

For further information on appropriate plant species for your locality, contact your local council, plant nurseries or plant society.

If you require information on how to care for fire damaged trees, refer to the Firewise brochure *Trees and Fire Resistance; Regeneration and care of fire damaged trees.*

WIND BREAKS

Rows of trees can provide a wind break to trap embers and flying debris that could otherwise reach the house or asset.

You need to be aware of local wind conditions associated with bush fires and position the wind break accordingly. Your local RFS Fire Control Centre can provide you with further advice.

When choosing trees and shrubs, make sure you seek advice as to their maximum height. Their height may vary depending on location of planting and local conditions. As a general rule, plant trees at the same distance away from the asset as their maximum height.

When creating a wind break, remember that the object is to slow the wind and to catch embers rather than trying to block the wind. In trying to block the wind, turbulence is created on both sides of the wind break making fire behaviour erratic.



HOW CAN I FIND OUT MORE?

The following documents are available from your local Fire Control Centre and from the NSW RFS website at www.rfs.nsw.gov.au.

- Before You Light That Fire
- Standards for Low Intensity Bush Fire Hazard Reduction Burning
- Standards for Pile Burning
- Application Instructions for a Bush Fire Hazard Reduction Certificate

If you require any further information please contact:

- your local NSW Rural Fire Service Fire Control Centre. Location details are available on the RFS website or
- call the NSW RFS Enquiry Line 1800 679 737 (Monday to Friday, 9am to 5pm), or
- the NSW RFS website at www.rfs.nsw.gov.au.

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