



LE MOTTEE
GROUP

SURVEYING | CIVIL ENGINEERING | TOWN PLANNING | PROJECT MANAGEMENT
STRATA CERTIFICATION | ECOLOGY | BUSHFIRE ASSESSMENT

Pty Limited ABN 38 136 535 156

BUSHFIRE THREAT ASSESSMENT

FOR

PROPOSED DUAL OCCUPANCY OF

LOT 5 DP 727263

1294 SUMMER HILL ROAD, SUMMER HILL

OUR REF: 9416

This report was prepared by Steve Beatty from Le Mottee Group Pty Ltd (LMG). Steve has a Bachelor of Civil Engineering and has been preparing bushfire reports since 2008 with over 900 reports prepared for mainly single dwellings as well as many integrated developments.

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Disclaimer: the recommendations provided throughout this report have been suggested in accordance with guidelines outlined in Planning for Bushfire Protection 2022 (Addendum November 2022) and AS 3959 -2018. The implementation of these measures contributes to the amelioration of the potential threat from bushfires in the area. They do not guarantee that the site will not be affected by bushfires in the area at some time in the future. Le Mottee Group takes no responsibility for any damage or loss that may be experienced from bushfires in the future.

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1. INTRODUCTION

1.1 BACKGROUND

Le Mottee Group (LMG) has been commissioned by Valley Homes to undertake a bushfire threat assessment of Lot 5 DP 727263 1294 Summer Hill Road, Summer Hill. For the purpose of this report, Lot 5 shall be referred to as 'the site'. The site locality is shown by the red star in **Figure 1** and **Figure 2**.

The site is located within the Dungog Council, Local Government Area.



Figure 1 – Locality Sketch



Figure 2 - Lot Scale Locality Sketch

1.2 THE PROPOSAL

This report shall accompany a Development Application (DA) for the proposed Dual Occupancy of the site as shown in **Figure 3** below.

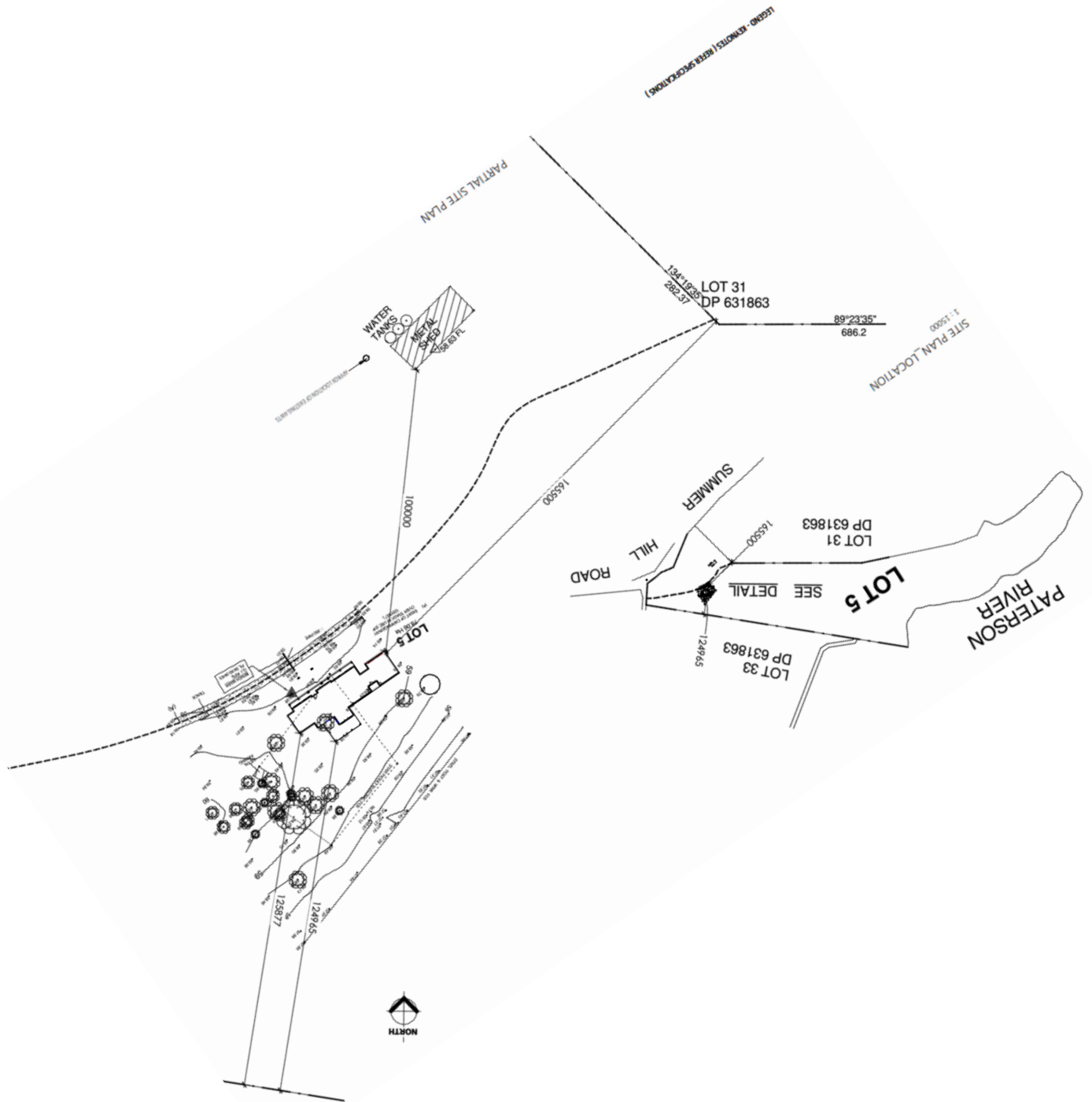


Figure 3 - Proposed Dual Occupancy

1.3 PURPOSE OF THIS REPORT

The purpose of this report was to:

- Evaluate the potential bushfire threat presented to future development on the site;
- Recommend mitigation measures to lessen the potential bushfire threat to human life and property;
- Determine whether the proposed development satisfies the objectives of the Planning for Bushfire Protection document prepared by the Rural Fire Service (RFS).

1.4 LEGISLATIVE CONSIDERATIONS

1.4.1 ENVIRONMENTAL PROTECTION & ASSESSMENT ACT 1979 AND RURAL FIRES ACT 1997

The *Rural Fires and Environmental Assessment Legislation Amendment Act 2002* amends both the *Environmental Protection and Assessment Act 1979* (EP&A Act) and the *Rural Fires Act 1997* to provide a stronger, more streamlined system for planning for bushfire protection.

The site has been identified on the Bushfire Prone Land Map as bushfire prone land as shown in **Figure 4** below

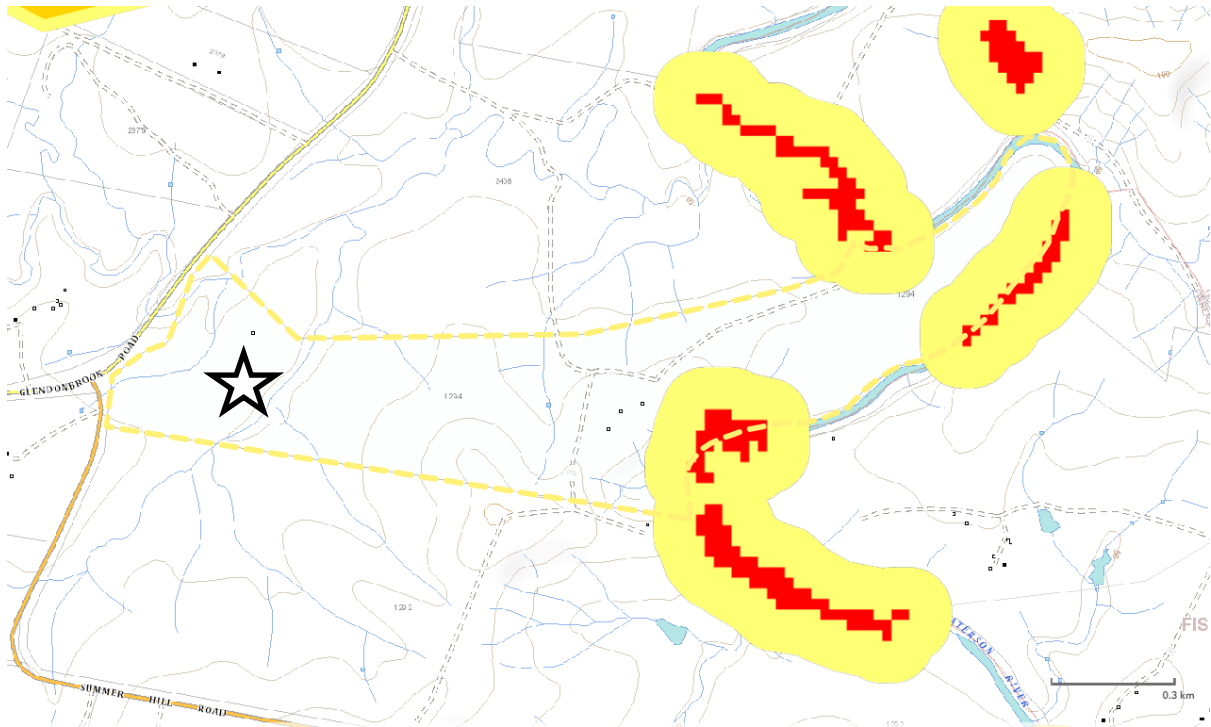


Figure 4 - Bushfire Prone Land Map

1.4.2 PLANNING FOR BUSHFIRE PROTECTION

The *Planning for Bushfire Protection* (PBP) 2019 (Addendum November 2022) guidelines developed by the NSW RFS have been used in this assessment of bushfire risk. PBP applies to all DA's on land that is deemed 'bushfire prone'.

A development on bushfire prone land must satisfy the broad aims and objectives of PBP guidelines, the specific objectives for the development type and the detailed performance criteria for proposed bushfire protection measures (RFS, 2019).

The broad aims of the guideline are to:

- (i) Afford occupants of any building adequate protection from exposure to a bushfire;
- (ii) Provide for a defensible space to be located around buildings;
- (iii) Provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent direct flame contact and material ignition;
- (iv) Ensure that safe operational access/egress for emergency service personnel and residents relocating is provided and/or available;

- (v) Provide for ongoing management and maintenance of bushfire protection measures, including fuel loads in the asset protection zone (APZ);

Ensure that utility services are adequate to meet the needs of fire-fighters (and others assisting in bushfire fighting).

1.4.3 10/50 CODE

The 10/50 Code was created to give land owners stronger protection against bush fires and was developed by the Government in response to community concerns after devastating bush fires in 2013.

The Code of Practice known as the 10/50 Vegetation Clearing Code of Practice for New South Wales (the 10/50 Code) has been prepared in accordance with section 100Q of the Rural Fires Amendment (Vegetation Clearing) Bill 2014. The 10/50 Code has been developed to provide for vegetation clearing work to be carried out in certain areas near residential accommodation or high-risk facilities to reduce the risk of bush fire. It permits landowners in the 10/50 vegetation clearing entitlement area to clear on their own land, vegetation that is adjacent to an external wall of a building containing habitable rooms that comprises or is part of residential accommodation or a high-risk facility. The Commissioner of the NSW Rural Fire Service (NSW RFS) may review this 10/50 Code at any time.

Expressions defined in Division 9 of the Rural Fires (Vegetation Clearing) Amendment Bill 2014 have the same meaning for this 10/50 Code. A definition within the Rural Fires Act 1997 applies to this 10/50 Code, except where the terms defined in Division 9 of the Rural Fires (Vegetation Clearing) Amendment Bill 2014 apply. For the purpose of this 10/50 Code the following definitions apply:

- 10/50 vegetation clearing entitlement area: land determined by the Commissioner of the NSW Rural Fire Service to be a 10/50 vegetation clearing entitlement area, and is identified as such on a map published on the NSW RFS website.
- This 10/50 Code applies to vegetation adjacent to external walls of a building containing habitable rooms that comprises, or is part of, residential accommodation or a high-risk facility as per the Code.
- Tree: a perennial woody plant having:
 - a single stem or trunk

- is 3 or more metres in height, and
 - the trunk, at a height of 1.3 metres above the ground, has a circumference of more than 0.3 metres.
- A tree does not include a shrub, which is a small low growing woody plant with multiple stems, or a vine which is a woody plant that depends on an erect substrate to grow on.

Vegetation clearing that is carried out in accordance with this 10/50 Code is considered to be authorised clearing under NSW legislation.

The clearing of vegetation under this 10/50 Code can only be conducted with the consent of the landowner. It is not permissible to clear any land without the owner's consent:

- Tenants must obtain approval from the landowner prior to commencing any clearing works
- Landowners may not clear adjoining land without the approval of the landowner

Where a single tree trunk occurs across two or more properties, the approval of all landowners is required for removal of the tree. It is recommended that evidence of such consent be recorded.

1.4.4 RURAL BOUNDARY CLEARING CODE

The Rural Boundary Clearing Code was created to give landowners stronger protection against bush fires and was developed by the Government in response to community concerns after devastating bush fires in 2019/20.

The Rural Boundary Clearing Code provides for landholders to clear any vegetation on applicable land within 25 metres of the boundary of their holding. The clearing must be on their own land. Applicable land is that land so mapped in this search result (as identified in purple shading).

The clearing may only be undertaken (where applicable) along the boundary of the landholding (as defined in the [Rural Boundary Clearing Code](#)). A holding includes a parcel of land or several parcels of land (whether held under the same title, different titles or different kinds of titles) that constitute or are worked as a single property and that are contiguous with one another or are separated from one another only by a road, river, creek or other watercourse.

The clearing of vegetation provided for under this scheme is for bush fire hazard reduction and clearing should only be done to the minimum extent necessary for that purpose. As such, a landholder is not required to clear the entire 25 metres in order for the clearing to be considered lawful.

You may only clear vegetation in accordance with the Rural Boundary Clearing Code, including (but not limited to the following conditions):

- You may not remove trees (or prune more than 25% of the original canopy) on slopes greater than 18 degrees except in accordance with conditions identified in a Geotechnical Engineer Assessment Report undertaken for that purpose.
- Mangroves and salt marsh may not be cleared. For more information refer to the Department of Primary Industries fact sheets on Mangroves and Coastal saltmarsh.
- Any areas mapped as protected riparian land in the online tool are excluded from the Code. In addition, clearing must not cause stream bank instability and any process that results in declining water quality for any lakes or rivers. Lake and river are as defined in the Code.
- Clearing under this Code cannot be inconsistent with any of the legal obligations such as land management agreements,

conditions of development consent and Stop Work Orders) as identified under Clause 6.9 of the Code.

- Herbicides may only be used in accordance with the conditions under Clause 6.3 of the Code.
- Burning of standing or felled vegetation may only be undertaken in accordance with Clause 6.3 of the Code.
- Landowners have a duty of care to avoid cruelty and harm to native, introduced or domestic animals when clearing. Landowners who clear under the Code are not exempt from prosecution under the National Parks and Wildlife Act 1974 for harm to protected fauna, or for deliberate cruelty to animals under the Prevention of Cruelty to Animals Act 1979. Operating in accordance with the Code does not absolve the landowner from their responsibility for avoiding harm to protected fauna or deliberate cruelty to animals. Note: 'protected fauna' is as defined in the National Parks and Wildlife Act 1974.
- Landowners have a duty of care in the appropriate management of soil erosion and landslip risks when clearing under the Code and are not exempt from liability. For example, action may be pursued by a party that suffers as a result of a landslip due to actions taken on your land. It is the responsibility of landowners to seek expert advice in relation to these matters. The conditions below have been put in place to assist landowners in the management of vegetation but operating in accordance with these conditions does not absolve the landowner from their responsibility for landslip and erosion issues. To manage soil erosion and landslip risks:
 - the clearing of native vegetation must be undertaken in a manner that minimises the risk of soil erosion and landslip, and
 - the landscape profile may not be altered.
- Methods of clearing that are not allowable under this Code include the use of chains (such as those used between two separate machines).
- Landowners who are informed by the online tool that their land parcel may contain an Aboriginal scarred tree are required to determine if the tree/s they wish to clear meet the criteria of an Aboriginal scarred tree as described in the Department of Planning, Industry and Environment's field manual for Aboriginal scarred trees in New South Wales. An Aboriginal scarred tree may not be cleared.

- Landowners have a duty of care to avoid harm to Aboriginal heritage when clearing vegetation in accordance with the Code. It is important that landowners are aware that use of machinery (particularly heavy plant) can result in harm to Aboriginal heritage. Landowners who clear under the Code are not exempt from prosecution under the National Parks and Wildlife Act 1974 for harm to Aboriginal heritage. Operating in accordance with the Code does not absolve the landowners from their responsibility for avoiding harm to Aboriginal heritage. Note: 'Aboriginal heritage is as defined in the National Parks and Wildlife Act 1974'. Landowners may avail themselves of relevant 'defence' provisions under the National Parks and Wildlife Act 1974.

2. BUSHFIRE THREAT ASSESSMENT

2.1 METHODOLOGY

The methodology employed to undertake the bushfire threat assessment was in accordance with *Planning for Bushfire Protection 2019 (Addendum November 2022)* and AS 3959-2018. The assessment typically involves a site visit and a desktop study to assess the physical attributes of the site such as vegetation structure, existing assets and surrounding land use.

Chapter 5 of PBP outlines a number of acceptable solutions that must be considered when subdividing bushfire prone land. Whether the proposed Dual Occupancy complies with the acceptable solutions has been assessed throughout this report.

For ease of classification and description, the Lot is perceived as running East-West from right to left and North-South from top to bottom as shown in **Figure 5** below.

The South East has been downgraded to Rainforest as per PfBP 2019 Clause A1.11.1 where Forest is Remnant Vegetation with fire run less than 50m.



Figure 5 - Site Assessment

2.2 EXISTING VEGETATION

The predominant vegetation threat was classified over 140m in accordance with identification key in Keith D (2004) and PBP in each direction as shown in the following table.

Direction	Land Use/Vegetation	Setback
North	Forest	>100m
South	Forest	55m
East	Rainforest	90m
West	Managed Land	n/a

The most significant bushfire threat within the area is from South & East.

2.3 FIRE DANGER INDEX

Fire weather assessment assumes a credible worst case scenario and an absence of any other mitigating factors relating to aspect or prevailing winds (RFS, 2019). The 1:50 year fire weather scenario for the site has an FDI rating of 100.

2.4 SLOPE

The “effective” slope under the threat within 100 metres of the site was determined in each direction as shown in the following table.

Direction	Slope
North	Upslope/Flat
South	0 to 5° downslope
East	0 to 5° downslope
West	n/a

2.5 BUSHFIRE ATTACK LEVEL (BAL)

Construction on the lot shall consider AS3959 - 2018 *Construction in Bushfire Prone Areas*. The level of construction necessary is determined using the distance from the BE to the hazard and the slope of the land.

With reference to Existing Vegetation, Fire Danger Index and Slope measurements above and in accordance with Section 4.14 of the Environmental Planning and Assessment Act 1979, Planning for Bush fire Protection 2019 (Addendum November 2022) by the NSW Rural Fire Service, each elevation was determined as shown in the following table.

<i>Direction</i>	<i>BAL</i>	<i>Adopted BAL</i>
North	n/a	BAL-12.5
South	BAL- 12.5	BAL-12.5
East	BAL- 12.5	BAL-12.5
West	n/a	BAL-12.5

We have assumed that your dwelling proposal would meet the required construction requirements for the appropriate Bushfire Attack Levels as typically outlined in Appendix A.

3. BUSHFIRE PROTECTION MEASURES

3.1 ASSET PROTECTION ZONES

3.1.1 MINIMUM REQUIREMENTS

An asset protection zone (APZ) or buffer is required between developments in bushfire prone land and vegetation deemed a bushfire threat. The provision of a dedicated APZ would ensure the Dual Occupancy complies with PBP and guarantee adequate separation from adjacent vegetation regardless of adjacent land use.

With reference to Existing Vegetation, Fire Danger Index and Slope measurements above and with reference to Table Series A1.12 of PBP and with further reference to Table 2.4 of AS.3959:2018, the APZ's already exist on the ground therefore further management is not recommended.

3.1.2 FUTURE MANAGEMENT OF THE APZ

We recommend managing the subject property as an Asset Protection Zone in accordance with Appendix 4 of NSW-RFS – Planning for Bushfire Protection with reference to Figure A4.1 below from PBP 2019.

Asset Protection Zones

An APZ is a fuel-reduced area surrounding a building or structure. It is located between the building or structure and the bush fire hazard. For a complete guide to APZs and landscaping, download the NSW RFS document Standards for Asset Protection Zones at the NSW RFS Website www.rfs.nsw.gov.au.

An APZ provides:

- a buffer zone between a bush fire hazard and an asset;*
- an area of reduced bush fire fuel that allows for suppression of fire;*
- an area from which backburning or hazard reduction can be conducted; and*

- an area which allows emergency services access and provides a relatively safe area for firefighters and homeowners to defend their property.

Bush fire fuels should be minimised within an APZ. This is so that the vegetation within the zone does not provide a path for the spread of fire to the building, either from the ground level or through the tree canopy.

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

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

In forest vegetation, the APZ can be made up of an Inner Protection Area (IPA) and an Outer Protection Area (OPA).

Inner Protection Areas (IPAs)

The IPA is the area closest to the building and creates a fuel-managed area which can minimize the impact of direct flame contact and radiant heat on the development and act as a defensible space. Vegetation within the IPA should be kept to a minimum level. Litter fuels within the IPA should be kept below 1cm in height and be discontinuous.

In practical terms the IPA is typically the curtilage around the building, consisting of a mown lawn and well-maintained gardens.

When establishing and maintaining an IPA the following requirements apply:

Trees

- tree canopy cover should be less than 15% at maturity;
- trees at maturity should not touch or overhang the building;
- lower limbs should be removed up to a height of 2m above the ground;

- *tree canopies should be separated by 2 to 5m; and*
- *preference should be given to smooth barked and evergreen trees.*

Shrubs

- *create large discontinuities or gaps in the vegetation to slow down or break the progress of fire towards buildings should be provided;*
- *shrubs should not be located under trees;*
- *shrubs should not form more than 10% ground cover; and*
- *clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.*

Grass

- *grass should be kept mown (as a guide grass should be kept to no more than 100mm in height); and*
- *leaves and vegetation debris should be removed.*

Outer Protection Areas (OPAs)

An OPA is located between the IPA and the unmanaged vegetation. It is an area where there is maintenance of the understorey and some separation in the canopy. The reduction of fuel in this area aims to decrease the intensity of an approaching fire and restricts the potential for fire spread from crowns; reducing the level of direct flame, radiant heat and ember attack on the IPA.

Because of the nature of an OPA, they are only applicable in forest vegetation.

When establishing and maintaining an OPA the following requirements apply:

Trees

- *tree canopy cover should be less than 30%; and*
- *canopies should be separated by 2 to 5m.*

Shrubs

- shrubs should not form a continuous canopy; and
- shrubs should form no more than 20% of ground cover.

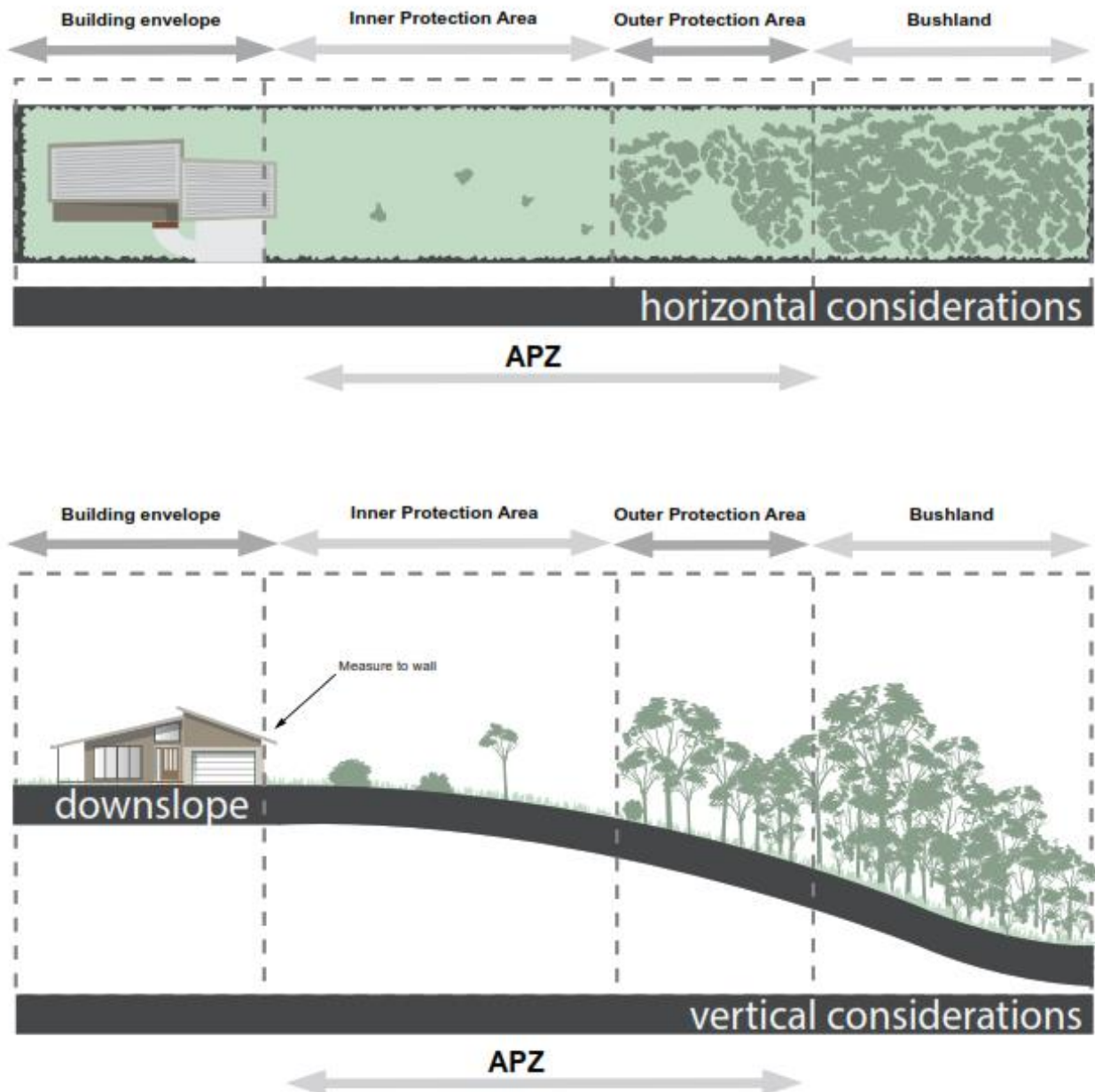
Grass

- grass should be kept mown to a height of less than 100mm; and
- leaf and other debris should be removed.

An APZ should be maintained in perpetuity to ensure ongoing protection from the impact of bush fires. Maintenance of the IPA and OPA as described above should be undertaken regularly, particularly in advance of the bush fire season.

Figure A4.1

Typical Inner and Outer Protection Areas.



We further recommend to manage Asset Protection Zones in accordance with Steps 4-6 of *Standards for Asset Protection Zones* by N.S.W. Rural Fire Service.

3.1.3 10/50 VEGETATION CLEARING

With further reference to the NSW RFS 10/50 website “online tool”, this address is located in a designated 10/50 vegetation entitlement clearing area. Clearing can be carried out in accordance with the 10/50 Code of

Practice, as available at www.rfs.nsw.gov.au. Ensure that clearing is also in accordance with the 10/50 Code. You may not remove trees (or prune more than 25% of the original canopy) on slopes greater than 18 degrees except in accordance with conditions identified in a Geotechnical Engineer Assessment Report undertaken for that purpose.

3.1.4 RURAL BOUNDARY CLEARING CODE

With further reference to the NSW RFS Rural Boundary Clearing Tool website for this address. Boundary clearing may be permissible/allowed under the Rural Boundary Clearing Code on this site. You may only clear vegetation along your boundary in these areas in accordance with the [Rural Boundary Clearing Code](#).

3.1.5 ACCESS TRAILS

It is recommended that formalised fire/access trails be installed to access the future dwelling once approved and existing dwelling.

The access trails might need to provide an alternate access to the public road where the dwelling is more than 200 metres from the road. This could be achieved to Summer Hill Road or Glendonbrook Road. If desired, the access would need to;

- be a minimum carriageway width of four (4) metres.
- have passing bays every 200 metres that are 20 metres long by two metres wide, making a minimum trafficable width of six metres at the passing bay.
- be a minimum vertical clearance of four metres to any overhanging obstructions, including tree branches.
- provide a loop road around any dwelling or incorporate a turning circle with a minimum 12 metre outer radius
- have curves have a minimum inner radius of six metres and are minimal in number to allow for rapid access and egress.
- have minimum distance between inner and outer curves is six metres.
- achieve crossfall not more than 10 degrees.

- Have maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads.

Note: Some short constrictions in the access may be accepted where they are not less than the minimum (3.5m), extend for no more than 30m and where the obstruction cannot be reasonably avoided or removed.

3.2 ACCESS AND EGRESS

Access to the site is from Summer Hill Road which is a local road. Egress from the site can be via this road to Glendonbrook Road then either the east or west. The East connects to Gresford. The West connects to Glendon Brook or Singleton. These roads are local roads generally of 6 to 8 metres width with widths available for passing of trucks and cars. These roads are all of bitumen construction in relatively good order. There are no bridge crossings or impediments in the area that would not allow truck access.

It is considered appropriate for emergency egress from the property to be via Glendonbrook Road and summer Hill Road either East or West to Gresford or Singleton. Egress is in two directions away from perceived Bushfire threats. It is not recommended that Evacuation Plans be made in the event of a fire as egress should not be cut-off. Residents however should be aware of bushfire warnings and evacuate as necessary.

3.3 SERVICES – WATER, ELECTRICITY AND GAS

The proposed dwelling shall be provided with water supply. As per Table 5.3d of PBP 2019 it is required to have 20,000 litres storage on site. We trust existing and proposed roof Rainwater Tanks can provide this total volume as a minimum.

Electrical transmission lines should be underground if possible. Where overhead lines are proposed, lines should be installed with short pole spacing and no part of a tree should be closer to the power line than the distance set out 'Vegetation safety Clearances' issued by Energy Australia (NS 179, April 2002).

Gas cylinders should be installed and maintained in accordance with AS 1596. Metal piping should be used and all fixed gas cylinders should be kept clear of flammable materials and shielded on the hazard side. Gas cylinders kept close to buildings should have their gas release valves directed away from the building and any combustible materials (RFS, 2019).

All exposed piping for water and gas supply should be metal or buried to a depth of at least 300 mm below the finished ground level.

4. SPECIAL CONSIDERATIONS

The following items have not been considered in this report;

- *Significant Environmental Features*
- *Riparian corridors.*
- *SEPP 14 – Coastal Wetlands.*
- *SEPP 26 – Littoral rainforests.*
- *SEPP 44 – Koala Habitat.*
- *Geological interest.*
- *Protection zones or steep land.*
- *Land slip or flood prone.*
- *National parks or other reserves.*
- *Threatened or Endangered Flora or Fauna.*
- *Critical Habitats.*
- *Aboriginal Heritage.*

5. PHOTOGRAPHS



Photograph 1 – North



Photograph 2 – East



Photograph 3 – South



Photograph 4 - West

6. SUMMARY & RECOMMENDATIONS

The findings of this report are summarised below.

To ensure the proposed Dual Occupancy satisfies *Planning for Bushfire Protection* a number of recommendations have been provided. These include:

- The site is proposed to have a Dual Occupancy.
- The property is bushfire prone.
- Asset Protection Zone with Inner & Outer Protection Area's already exist on site and are recommended to be managed in perpetuity.
- The site is adequately serviced by water tanks.
- The site is adequately serviced by power and infrastructure will be extended to service the new dwelling.
- The site currently has the necessary infrastructure for access for fire fighting and emergency egress.
- The proposed Dual Occupancy complies with the acceptable solutions outlined in Chapter 5 of PBP.

7. REFERENCES

Australian Standard 3959 (2018). **Construction of buildings in bushfire-prone areas**. Standards Australia.

NSW Rural Fire Service (2022). **Planning for Bushfire Protection**. NSW Rural Fire Service.

10/50 Vegetation Clearing (2014) NSW Rural Fire Service.

http://www.rfs.nsw.gov.au/_data/assets/pdf_file/0003/18453/1050-Vegetation-Clearing-Code-of-Practice.pdf

Rural Boundary Clearing Code for NSW (2021) NSW Rural Fire Service.

https://www.rfs.nsw.gov.au/_data/assets/pdf_file/0014/231422/Rural-Boundary-Clearing-Code-for-New-South-Wales.pdf

Bushfire Prone Land Hazard Mapping (2020). **ePlanning Spatial Viewer**. NSW Government.

<https://www.planningportal.nsw.gov.au/spatialviewer/#/find-a-property/address>

Keith, D. (2004) **Ocean shores to desert dunes: the native vegetation of New South Wales and the ACT**. NSW Department of Environment and Conservation, Hurstville.

8. APPENDIX A – DWELLING CONSTRUCTION REQUIREMENTS

		BAL-12.5
Construction Element (AS.3959:2018)		Typical Construction Requirement
Use CL.7.2 (PfBP 2019)	SUB FLOOR SUPPORTS	No requirement if enclosed by wall and/or mesh (See CL.5.4). IF UNENCLOSED Non-Combustible or fire retardant materials
CL.5.3.1	Slab on ground	NO REQUIREMENT
CL.7.3.2 (PfBP 2019)	Elevated floors	No requirement if <u>enclosed</u> by wall or mesh (see CL.5.4). IF UNENCLOSED Non-Combustible or fire retardant materials (inc flooring). Flooring may be non-bushfire resisting if underside is sarked OR complying with AS.1530.8.1. Does not include elevated floors >400mm above FGL
CL.5.4.1	EXTERNAL WALLS	<400 above surface Non combustible OR Fire retardant OR 6mm FC
CL.5.4.2	JOINTS	Not greater than 3 mm OR sarking to external frame
CL.5.4.3	VENTS & WEEPHOLES	Aluminium mesh Max Aperture 2mm
CL.5.5.1	BUSHFIRE SHUTTERS	Where fitted comply with clause 3.7 and be Non-Combustible OR Fire retardant
CL.5.5.2	WINDOWS	Protected by Shutter OR Fully screened OR Fire retardant or metal frame, Screens to open able window sashes AND if glass <400 above surface 4mm toughened glass
CL.5.5.3	DOORS - Side hung inc French, panel & Bi fold (Includes door sidelights)	Protected by Shutter OR Fully screened OR SOLID core min 35mm OR Glazing <400 above surface 4mm toughened and fire retardant door frame. ALL Door jambs to be fire retardant
CL.5.5.4	DOORS - SLIDING	No requirement to screen open able part of sliding doors
CL.5.5.5	DOORS - GARAGE	<400 above surface to be non-combustible. Draft excluders to perimeter of door. Acrylic panels allowed?
CL.5.6.1	ROOFS - General	Roofing to be non-combustible, No openings greater than 3mm. Ventilators, if reqd, to be non combustible
PfBP 2019	SARKING (where used)	Non Combustible OR breather type complying with AS.4200.1 with flammability index of not more than 5 (see AS.1530.2) and sarked on outside of frame OR an insulation material conforming to the appropriate Australian Standard for that material.
CL.5.6.2	TILED ROOFS	Shall be fully sarked. Prestite to valleys
CL.5.6.3	SHEET ROOFS	Anticon blanket
CL.5.6.4	VERANDAH ROOFS	As per main roof
CL.5.6.5	ROOF PENETRATIONS	No gaps greater than 3mm OR Max 2mm mesh. Laminated glass to roof lights PVC vent pipes allowed
CL.5.6.6	EAVES	PVC joint strips. Standard eaves linings. Standard eave moulds. Gables: no requirement
CL.5.6.7	GUTTERS & DOWNPIPES	No requirements
CL.7.7	VERANDAHS, DECKS, STEPS	(Requirements as per CL.7.7 as per PfBP 2019)
CL.7.7.1	LANDINGS GENERAL	No requirement to enclose sub-floor. 3mm spacing to decking.
CL.7.7.2	ENCLOSED SUB-FLOORS	
CL.7.7.2.1	Materials to enclose a sub-floor space	If sub-floor enclosed materials to be fire retardant. Gaps >3mm to be meshed (mesh gaps <2mm).
CL.7.7.2.2	SUPPORTS	No requirements for support posts
CL.7.7.2.3	FRAMING	No requirements for the framing of decks, landings etc
CL.7.7.2.4	DECKING	Non combustible fire retardant
CL.7.7.3	UNENCLOSED SUB FLOORS	
CL.7.7.3.1	Supports	Non combustible fire retardant
CL.7.7.3.2	Framing	Non combustible fire retardant
CL.7.7.3.3	Decking	Non combustible fire retardant
CL.7.7.4	BALUSTRADES, HANDRAILS	If less than 125mm from glazing or any combustible wall. Non combustible fire retardant
	VERANDAH POSTS	Non-combustible or Fire retardant
CL.5.8	WATER & GAS PIPES/GAS BOTTLES	Above ground, exposed shall be metal. Reticulated or bottled gas is installed and maintained in accordance with AS1596:2008 and the requirements of relevant authorities (Metal Piping must be used). Fixed cylinders within 10 metres of dwelling are to be kept 10m clear of flammable materials and to be shielded on the hazard side, have their release valves directed away from the dwelling, have metal connections, and no polymer sheathed meters.