

SURVEYING | CIVIL ENGINEERING | TOWN PLANNING | PROJECT MANAGEMENT STRATA CERTIFICATION | ECOLOGY | BUSHFIRE ASSESSMENT Pty Limited ABN 38 136 535 156

BUSHFIRE THREAT ASSESSMENT

FOR

Proposed Subdivision of Lot 100 DP 870284 2 Urquharts Lane, Stroud

OUR REF: 9420

PO Box 363 Raymond Terrace NSW 2324 | 199 Adelaide Street Raymond Terrace NSW 2324 Phone: 02 4987 1748 | Fax: 02 4987 2699 | Email: <u>reception@lemottee.com</u> | www.lemottee.com 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 2019 (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.

Le Mottee Group Pty Limited (Ref: 9420)

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1. INTRODUCTION

1.1 BACKGROUND

Le Mottee Group (LMG) has been commissioned by Tim & Jill Scott to undertake a bushfire threat assessment of Lot 100 DP 870284 2 Urquharts Lane, Stroud. For the purpose of this report, Lot 100 shall be referred to as 'the site' The site locality is shown by the red star in **Figure 1** and **Figure 2** at Regional and Suburb scale and in **Figure 3** at Lot scale.

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



Figure 1 – Regional Scale Locality Sketch

(Source: www.whereis.com)



Figure 2 - Suburb Scale Locality Sketch

(Source: <u>www.whereis.com</u>)



Figure 3 - Lot Scale Locality Sketch (Source: Google Earth Imagery – Image Date: 9/12/2023)

1.2 THE PROPOSAL

This report shall accompany a Development Application (DA) for the proposed Subdivision of the site to create 2 rural residential lots as shown in **Figure 4** below.





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 5** below. Any Subdivision of bushfire prone land for residential purposes will require a bushfire safety authority (BSA) under Section 100B of the Rural Fires Act 1997. The consent authority for the BSA is the NSW Rural Fire Services (RFS). Pursuant to Section 4.46 of the EP&A Act, the proposal is integrated development.



Figure 5 - 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 defendable 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 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 <u>Rural Boundary Clearing</u> <u>Code</u>). 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 Subdivision 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 6** below.



Figure 6 - Site Assessment (Source: NSW Explorer v1.1)

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	Managed Land and excluded low threat vegetation (Forest less than 0.25 ha and >20m from site as per A1.10 PBP 2019)	N/A
South	Managed Grazing land	N/A
East	Managed Land	N/A
West	Managed Grazing Land	N/A

The most significant bushfire threat within the area is from the North.

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 80.

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	N/A
South	N/A
East	N/A
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.

BAL-LOW
BAL-LOW
BAL-LOW
BAL-LOW

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

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 Subdivision 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 section A1.10 of PBP, no further APZ's are recommended.

3.1.2 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 part of this site. You may only clear vegetation along your boundary in these areas in accordance with the <u>Rural Boundary Clearing Code</u>.

3.2 ACCESS AND EGRESS

Access to the site is from Urquharts Lane which is a local road. Egress from the site can be via this road to Cowper Street either the North or South. The North connects to The Bucketts Way to Stroud Road. The South connects to The Buckets Way to Booral. 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 The Bucketts Way either North or South to Stroud Road or Booral. 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

Each proposed lot shall be connected to mains water supply. No alternative water supply is necessary at the subdivision stage of development.

Future water supply for bushfire protection shall be assessed upon development of each individual lot, however 10,000L of reuse water is recommended for Lot 2 for stormwater quality purposes.

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 that 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. SUMMARY & RECOMMENDATIONS

The findings of this report are summarised below.

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

- The site is proposed to be subdivided into 2 lots.
- The property is bushfire prone.
- No further APZ's are recommended due to the surrounding managed grazing lands and managed land.
- The site is adequately serviced by water mains and a hydrant.
- The site is adequately serviced by power and infrastructure will be extended to service the subdivided lots.
- The site currently has the necessary infrastructure for access for fire fighting and emergency egress.
- The proposed Subdivision complies with the acceptable solutions outlined in Chapter 5 of PBP.

6. REFERENCES

Australian Standard 3959 (2018). Construction of buildings in bushfireprone areas. Standards Australia.

NSW Rural Fire Service (2022). **Planning for Bushfire Protection 2019.** NSW Rural Fire Service.

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. **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.

7. APPENDIX A – DWELLING CONSTRUCTION REQUIREMENTS

	BAL-LOW
Construction Element (AS.3959:2018)	Typical Construction Requirement
NO REQUIREMENT	NO REQUIREMENT