# Bushfire Assessment Report Infill Development Proposed Single Residential Dwelling

# 10 Prosecco Place Murrumbateman NSW 2582

Prepared for A. Fordjour

**Version V1.0 – June 2025** 







#### **Project Details**

| Project Name:           | J382- Residential Development Murrumbateman  |  |
|-------------------------|--|--|
| Client Details:         | Augustine Fordjour (landowner)   |  |
| Project Address         | 10 Prosecco Place, Murrumbateman NSW 2582<br>Lot15 DP1301590                       |  |
| Local Government Area   | Yass Valley Council – (FDI 100 GFDI 130)   |  |
| Zoning (LEP)            | Yass Valley Local Environmental Plan 2013 – R2 Low Density Residential             |  |
| Bushfire Prone Land     | Category 3 (Grassland)   |  |
| Proposed Development    | Proposed Single Residential Dwelling   |  |
| Approval Path           | Council Development Application (DA) or<br>Complying Development Certificate (CDC) |  |
| Building Classification | Residential Development – Class 1-4 Structures                                     |  |

#### **Document Control**

|   | Version | Primary Author | Reviewed  | Description | Date Completed |
|---|---------|----------------|-----------|-------------|----------------|
| Ī | V1.0    | Dan Pedersen   |           |             | 6 June 2025    |
|   |         | (Laura Porse)  | BPAD16293 | Report      |                |

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#### 1. Introduction

Augustine Fordjour (the landowner) has commissioned Cool Burn Pty Ltd (Cool Burn) to prepare a Bushfire Assessment Report to support the Development Application (DA) for the proposed construction of a single residential dwelling at 10 Prosecco Place, Murrumbateman, within the Yass Valley Government Area (the site) (Appendix 1 – Figure 1).

The client seeks approval from Yass Valley Council to construct a new residential dwelling within the newly developed 'The Fields' subdivision. This Bushfire Assessment Report relates to the proposed building site, to determine the bushfire attack rating. No plans have been provided and the bushfire assessment refers to the whole allotment.

This Bushfire Assessment Report evaluates the bushfire risks associated with the site and assesses the proposal's compliance with the NSW Rural Fire Service (RFS) publication *Planning for Bushfire Protection* 2019 (PBP 2019).

To address bushfire risk and ensure compliance with protection requirements, Cool Burn has reviewed and applied the following guidelines and standards:

- Chapter 7 Planning for Bushfire Protection 2019 (PBP 2019).
- Australian Standard (AS) 3959-2018 Construction of Buildings in Bushfire Prone Areas.

#### 1.1.Location

The site is legally identified as Lot 15 DP1301590 being a new Lot in a recently developed subdivision in Murrumbateman (Figure 1). The surrounding land is under construction, and individual Lots are selling for residential development. Prosecco Place is a sealed public road. The development on The Fields subdivision will be serviced by static water supplies (tank water) and bore water supplies in accordance with the terms of a positive covenant for the Lot, pursuant to Section 88B of the Conveyancing Act 1919. Electricity supply is via below ground transmission lines.

The proposed development is on land mapped as Category 3 Bushfire Prone Land (BFPL) (Figure 2).

The site is identified in the Yass Valley Council LEP (2013) as R2 - Low Density Residential.



### 2. Legislative Framework

The proposal for a single dwelling on an existing vacant allotment qualifies as "infill development" in accordance with Planning for Bushfire Protection 2019 (PBP 2019). Infill development refers to the development of land through the erection, alteration, or addition to a building within an existing allotment, without requiring the spatial extension of services such as public roads, electricity, water, or sewerage.

Infill development proposals are often constrained by existing factors, including pre-existing subdivisions, lot patterns, and the surrounding built environment. A such, each proposal must be assessed based on its merits and aligned with the intent and performance criteria for infill development outlined in Chapter 7 of PBP 2019.

Under Section 4.14 of the Environmental Planning & Assessment Act 1979 (EP&A Act), the consent authority must consult with the NSW Rural Fire Service (RFS) if a development does not comply with the acceptable solutions in PBP 2019 or meet its performance requirements. Approval for such developments can be granted through one of the following mechanisms:

- <u>Compliance with PBP 2019 specifications:</u> The consent authority is satisfied that the development conforms to the specifications and requirements outlined in PBP 2019.
- <u>Certification by a qualified consultant:</u> A certificate is provided by a consultant recognised
  by the NSW RFS as qualified in bushfire risk assessment, stating that the development
  conforms to the relevant specifications and requirements.
- Approval despite non-conformance: If the development does not conform to the specifications and requirements, the consent authority may still grant approval. However, this can only occur after consultation with the Commissioner of the NSW RFS regarding protective measures to safeguard persons, property, and the environment from potential bushfire danger.

#### 2.1.General Objectives of Planning for Bushfire Protection

All development on Bushfire prone land (BFPL) must satisfy the aim and objectives of PBP 2019. The aim of PBP 2019 is 'to provide for the protection of human life and minimise impacts on property from the threat of bushfire, while having due regard to development potential, site characteristics and protection of the environment'. The objectives are to:

- Afford buildings and their occupants protection from exposure to a bushfire
- 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 Bushfire Protection Measures (BPMs)
- Ensure that utility services are adequate to meet the needs of firefighters.

#### 2.2. Specific Objectives for Residential Infill Development

The specific objectives for infill development, as outlined in Chapter 7 of PBP 2019, are as follows:

- 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 landowners
- Increase the level of bush fire protection to existing dwellings based on the scale of the proposed work and level of bush fire risk.



#### 3. Bushfire Risk Assessment

#### 3.1.Bushfire Prone Land

Bushfire prone land maps provide a trigger for the development assessment provisions and consideration of sites that are bushfire prone. Bushfire prone land (BFPL) is land that has been identified by Council and certified by the Commissioner of the RFS, which can support a bushfire or is subject to bushfire attack.

The site is identified as 'bushfire prone land' as mapped by Council for the purposes of Section 10.3 of the EP&A Act. Appendix 1 - Figure 2 shows that the site is mapped as Category 3 (Grassland) bushfire prone vegetation.

#### 3.2. Fire Weather

The Yass Valley LGA is located within the Southern Ranges fire weather district and has a Fire Danger Index (FDI) of 100 and a Grassland Fire Danger Index (GFDI) of 130.

#### 3.3. Vegetation Assessment

The bushfire behaviour assessment methodology assesses the vegetation classification on and surrounding the proposed dwelling out to 140 metres in accordance with the system for classification of vegetation contained in PBP 2019.

The vegetation within and adjoining this landholding is best described as managed grassland within the new subdivision (Plates 1-3). This is described as a low threat vegetation (consistent with Appendix A1.10 of PBP 2019): being grassland managed in a minimal fuel condition. Minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bushfire attack (recognisable as short cropped grass for example, to a nominal height of 100 mm).

A thin strip of vegetation (shelter belt) occurs within 140m of the dwelling to the east (roadside vegetation). This vegetation is approximately <10m in width, isolated from any other bushfire prone vegetation. In accordance with A1.10 of PBP 2019, vegetation is classified as excluded / low threat vegetation due to minimal fuel condition.





Plate 1 Subject site (looking southeast) and dwelling location - will be managed for development



Plate 2 Looking west, standards land management within The Fields (low threat vegetation)



# 3.4. Slopes Influencing Bushfire Behaviour

The bushfire behaviour assessment methodology assesses the slope of the land on and surrounding the site, out to 100 metres from the proposed development (dwelling) footprint.

The slope surrounding site gently falls in an east to southeast direction. The effective slopes of the surrounding land (Appendix 1 – Figure 3) have been assessed as:

• North: upslope

• East: downslope 0-5°

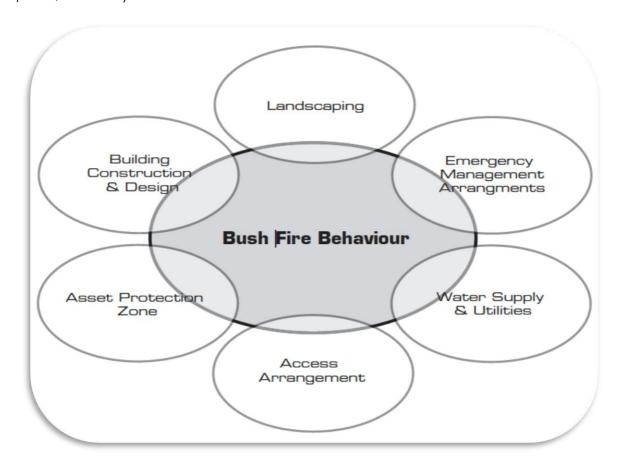
• South: downslope 0-5°

West: upslope.



# 4. Recommended Bushfire Protection Measures (BPMs)

The BPMs for residential development include provisions relating to Asset Protection Zones (APZ), access, water supply, electricity and gas services, construction standards, landscaping, and emergency evacuation (Plate 3). The following BPM recommendations have been made to achieve compliance with the acceptable solutions and performance criteria for infill development (Chapter 7, PBP 2019).



**Plate 3 Bushfire Protection Measures** 

#### 4.1. BPM - Asset Protection Zones

The Asset Protection Zone (APZ) is a fuel-reduced, physical separation between structures and bushfire hazards.

The development is within a developing subdivision and has managed grasslands surrounding it. The entire site will be managed as an APZ extending to property boundaries (development site condition – refer Section 4.2 Landscaping below).

The APZ will be achieved wholly within The Fields subdivision, and incorporate surrounding landholdings. The APZ will provide setbacks greater than 50m to any grassland hazard and greater than 100m to any woodland hazard.



- ✓ APZ is provided commensurate with the construction of the building
- ✓ the APZ is provided in perpetuity.

#### 4.2.BPM - Landscaping

This assessment recommends that landscaping is established and managed to the prescribed standards for Inner Protection Area (IPA) as detailed in Appendix 4 PBP 2019 (this is also a requirement stipulated in The Fields contract condition).

The IPA creates a fuel-managed area which can minimise the impact of direct flame contact, radiant heat, and ember attack on the development and act as a defendable 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.

When establishing and maintaining an IPA the following requirements apply:

#### Trees

- o tree canopy cover should be less than 15% at maturity
- o trees at maturity should not touch or overhang the building
- o lower limbs should be removed up to a height of 2m above the ground
- o tree canopies should be separated by 2 to 5m
- o 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
- o shrubs should not be located under trees
- o shrubs should not form more than 10% ground cover
- 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
- o leaves and vegetation debris should be removed.

Fences and gates can play a significant role in the vulnerability of dwellings during bushfires. Any fencing to be constructed within 6m of the dwelling must be made of hardwood or non-combustible material.

The recommended landscaping measures provide acceptable solutions and meet the performance criteria as detailed in PBP 2019 Table 7.4a as follows:



✓ Landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions.

#### 4.3.BPM - Construction

The Bushfire Attack Level (BAL) is a means of measuring the ability of a building to withstand attack from bushfire. The BAL is defined in Australian Standard AS 3959-2018 (AS3959). Table A1.12.5 of PBP 2019 has been used to determine the relevant BAL rating applying to the site and the required level of AS3959 construction.

The proposed dwelling is >100m from bushfire prone vegetation, with the planned development of all surrounding Lots. Therefore, **BALLow** is applicable (insufficient threat to warrant specified bushfire construction standards AS3959).

The construction measures provide acceptable solutions and meet the performance criteria as detailed in PBP 2019 Table 7.4a as follows:

- ✓ The proposed building can withstand the modelled bush fire attack in the form of embers, radiant heat and flame contact.
- ✓ Proposed fences and gates designed to minimise the spread of bush fire.

#### 4.4.BPM - Access

**Public Road**: Access to the site will be provided from Prosecco Place (a cul-de-sac), an existing road (speed limited to 50km/h) that is connected to Isabel Drive being the nearest through road.

Prosecco Place (Plate 4) is a sealed all weather two-way road, 6m width. The existing public road system will have capacity to carry fully loaded firefighting vehicles and is considered adequate for simultaneous evacuation and fire suppression.

**Property Access**: Property access refers to vehicle access (driveways) from private land onto the public road system. If the furthest external point of the building site is within 70 meters of Prosecco Place, ensuring that firefighting appliances can adequately access all areas of the dwelling directly from the public road, no additional bushfire-specific property access road requirements are considered necessary. , no additional bushfire-specific property access road requirements are considered necessary, no additional bushfire-specific property access road requirements are considered necessary (refer Table 7.4a PBP 2019).

The access requirements for the proposed development can meet the acceptable solutions in PBP 2019 Table 7.4a.

✓ Provide firefighting vehicles with safe, all-weather access to structures, and firefighting vehicles can access the dwelling and exit the property safely.





Plate 3 Prosecco Place (looking south)

#### 4.5.BPM - Water and Services

#### Water

The Fields development will provide a static water supply suitable for filling firefighting appliances as detailed in the contract condition (see Plate 5 below).

A potable water supply storage shall be provided on each lot. Each dwelling shall have a rainwater storage tanks installed with a minimum capacity of 110,000 litres and connected to the entire roof catchment area and plumbed to toilets, washing machine and showers.

Above ground tanks shall provide for the refilling of fire tankers by the installation of a "Storz" fitting at the base of the tank with a gate valve. The house service may branch off this outlet.

Underground tanks shall include an access hole of at least 150mm diameter.

#### Plate 4 Contract condition, water supplies.

A tank with a minimum capacity of 110,000L will be installed for the development. The tank will have a 65mm Storz outlet with ball valve to allow use by firefighting vehicles. A hardened surface must be provided to within 4m of the tank to ensure the water supply is accessible. The tank should be made from non-combustible materials (metal or concrete). It is recommended that any above water supply pipes and taps external to the building are metal.



The recommended water supply measures provide acceptable solutions and meet the performance criteria outlined in PBP 2019 Table 7.4a, ensuring:

- ✓ An adequate water supply is provided for firefighting purposes.
- ✓ The water supply is accessible and reliable for firefighting operations.
- ✓ The integrity of the water supply is maintained.
- ✓ A static water supply is provided for firefighting purposes in areas where reticulated water is not available.

#### **Electricity and Gas**

It is recommended that all electricity and gas provisions on the proposed development site are installed to relevant industry standards and guidelines:

#### **Electricity Services:**

• Electrical transmission lines are underground; and

#### Gas Services:

- Is to be installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used
- All fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side
- Connections to and from gas cylinders are metal
- Polymer-sheathed flexible gas supply lines are not used
- Above-ground gas service pipes are metal, including and up to any outlets.

The recommended services measures provide acceptable solutions and meets the performance criteria as detailed in PBP Table 7.4a, as follows:

- ✓ The location of electricity services limits the possibility of ignition of surrounding bush land or the fabric of buildings.
- ✓ Location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings.

#### 4.6. Emergency Management

The landowner is encouraged to prepare a Bush Fire Survival Plan (BFSP) available from the NSW Rural Fire Service website: Bush fire survival plan - NSW Rural Fire Service. This BFSP will help ensure



preparedness and safety in the event of a bushland or grass fire, outlining essential steps to protect life and property.



# 5. Summary

The proposal to construct a residential dwelling at 10 Prosecco Place (Lot 15 DP1301590) can demonstrate acceptable solutions for performance consistent with PBP 2019. The vegetation surrounding the site will be managed for new development, such that it is assessed as low threat vegetation. The following recommendations have been made for the development to satisfy development approvals:

- APZ the entire site (Lot 15) will be managed as APZ to the extent of the property boundary
- Landscaping The entire site would be managed in perpetuity as an Inner Protection Zone (Appendix 4 PBP 2019)
- Construction Standards BAL Low insufficient threat to warrant AS3959-2018 bushfire construction standards
- Access An unobstructed path of less than 70m should provided between the most distant
  external part of the proposed dwelling and the nearest part of the public access road
  (Prosecco Place) that supports the operational use of emergency firefighting vehicles
- Conditioned water supply standards for The Fields subdivision for is suitable firefighting purposes.

It is considered that the proposed development adequately considers bushfire risk and conforms to the specifications and performance criteria of PBP 2019, providing a suitable outcome commensurate with the bushfire risk.

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# 6. Assessment against the aims and objectives of PBP 2019

The bushfire assessment identifies the extent to which the proposed residential infill development conforms with or deviates from the aims and specific objectives set out in PBP 2019. Table 1 details the compliance with PBP aims and objectives.

Table 1 Compliance with Aim & Objectives of PBP

| Aim  | Meets              | Comment   |
|--|--------------------|---|
|  | Aim                |   |
| 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. | Yes                | The proposal has considered bushfire risk and applied relevant bushfire protection measures to mitigate bushfire impact, commensurate with the risk |
| General Objectives   | Meets<br>Objective | Comment   |
| afford buildings and their occupants protection from exposure to a bush fire;  | Yes                | The proposed development is afforded acceptable APZ protection and defendable space, commensurate to the risk                                       |
| provide for a defendable space to be located around buildings;   | Yes                | APZ will provide for a defendable space   |
| provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;  | Yes                | APZ and construction commensurate with assessed risk  |
| ensure that appropriate operational access<br>and egress for emergency service personnel<br>and occupants is available;  | Yes                | Property access can be provided to acceptable PBP 2019 standards  |
| provide for ongoing management and maintenance of BPMs; and  | Yes                | Bushfire management and maintenance (APZ & access) responsibility contained within the site (The Fields estate)                                     |



| ensure that utility services are adequate to meet the needs of firefighters.  | Yes                | Water and services can be provided to acceptable PBP2019 standards  |
|---|--------------------|---|
| Specific Objectives   | Meets<br>Objective | Comment   |
| provide a defendable space to enable unimpeded access for firefighting around the building;   | Yes                | The proposed development is afforded acceptable APZ protection and defendable space, commensurate to the risk     |
| provide better bush fire outcomes on a redevelopment site than currently exists, commensurate with the scale of works proposed;       | Yes                | The proposed development will provide a suitable level of risk mitigation   |
| design and construct buildings commensurate with the bush fire risk;  | Yes                | Recommended AS3959-2018 construction commensurate with assessed risk  |
| provide access, services and landscaping to aid firefighting operations;  | Yes                | Access, services and landscaping are provided to acceptable PBP2019 standards                                     |
| not impose an increased bush fire<br>management and maintenance responsibility<br>on adjoining land owners; and                       | Yes                | Management and maintenance responsibility contained within the lot, no further responsibility on adjoining owners |
| increase the level of bush fire protection to existing dwellings based on the scale of the proposed work and level of bush fire risk. | Yes                | The proposal will increase the level of bushfire protection to the localised residential area                     |



#### References

Keith, David (2004) – Ocean Shores to Desert Dunes – The Native Vegetation of New South Wales and the ACT. The Department of Environment and Climate Change

NSW Government (1979) Environmental Planning and Assessment Act 1979. NSW Government Printer

NSW Rural Fire Service (2015). Guide for Bushfire Prone Land Mapping

NSW Rural Fire Service (2019). Planning for Bushfire Protection: A Guide for Councils, Planners, Fire Authorities, Developers and Homeowners. Australian Government Publishing Service, Canberra

| <b>Appendix 1 Proposed Development Site Mapping</b> |  |
|---|--|
|   |  |
|   |  |

Figure 1: Locality Map



# Figure 1: Location

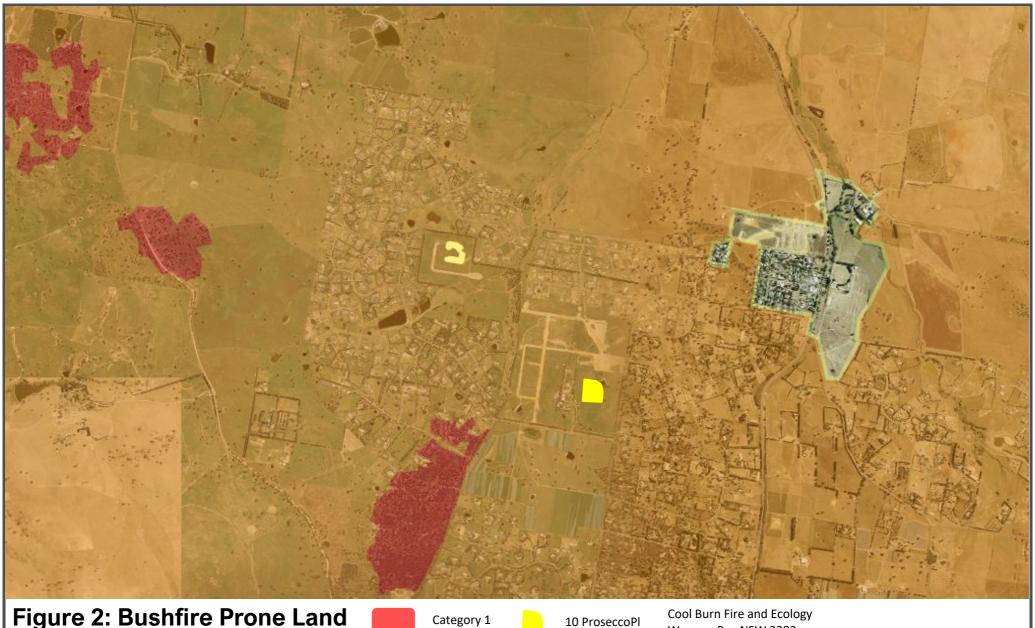
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**Figure 2: Bushfire Prone Land** 

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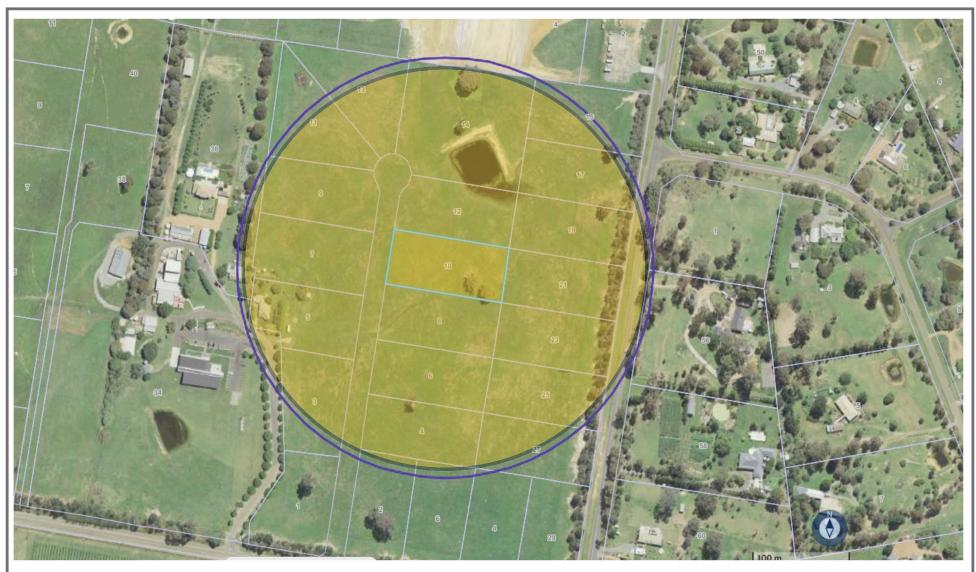
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Category 3

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# Figure 3: Bushfire Hazard



Low—threat managed vegetation

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Study area (140m)

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