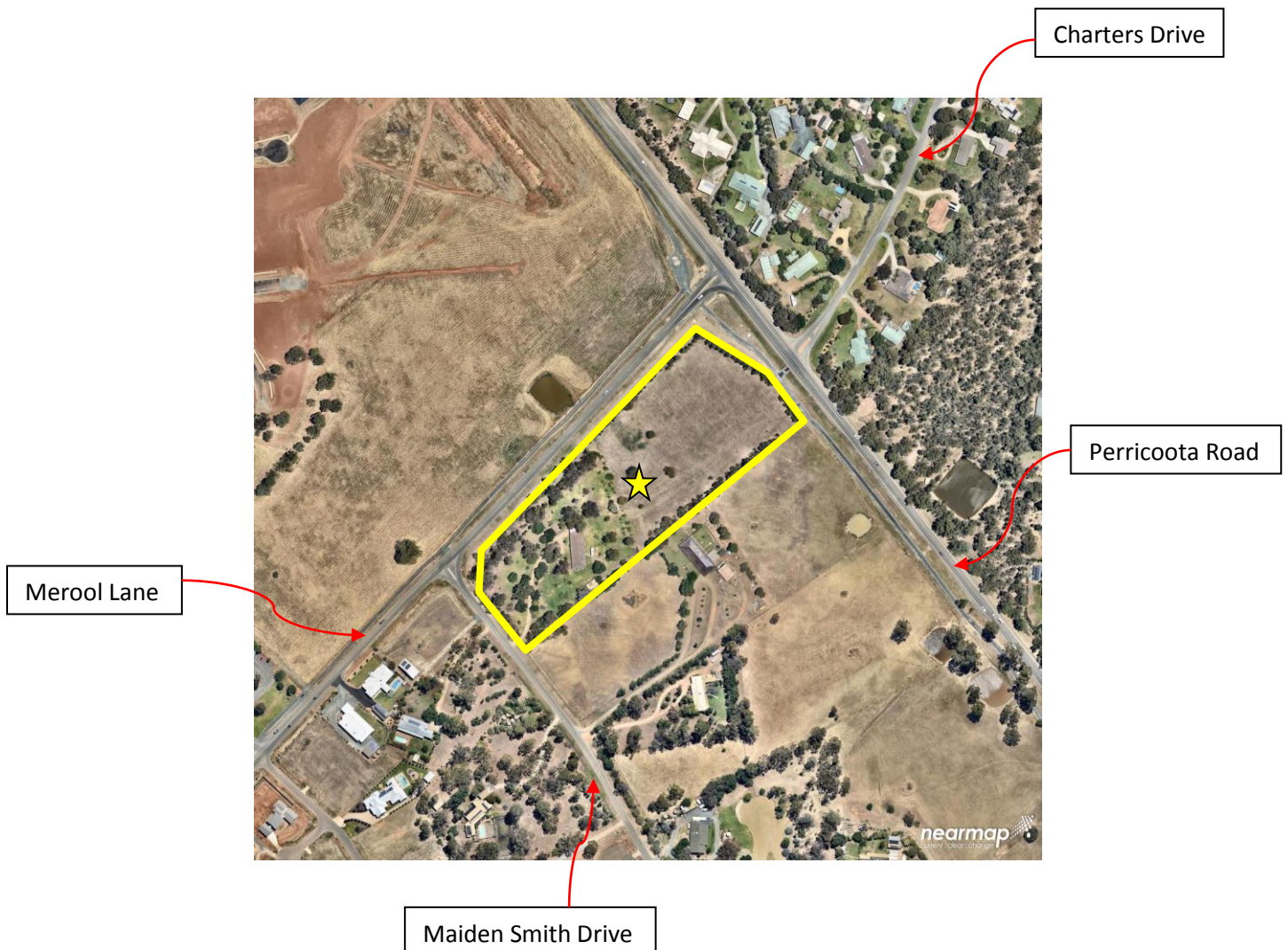




Bushfire Assessment

17 Maiden Smith Drive

Moama



2 Lot Subdivision

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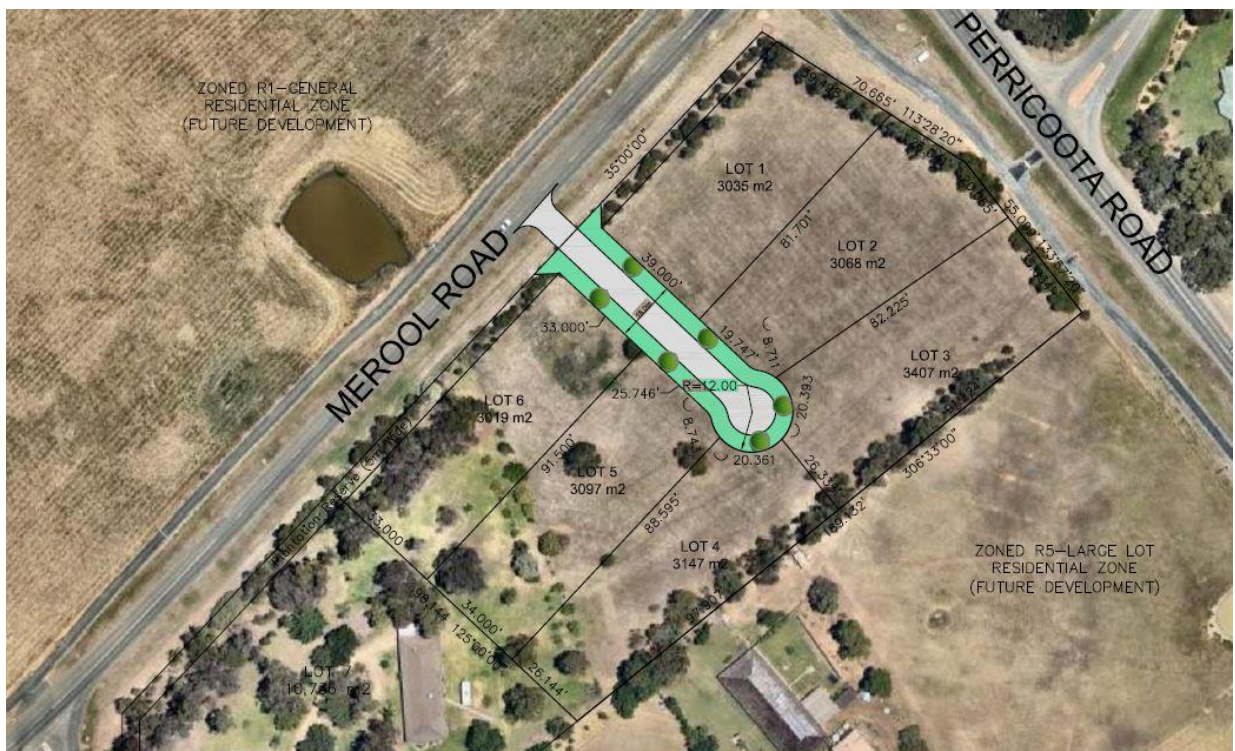
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1.0 INTRODUCTION

The proposed development has a small portion of the property identified as being bushfire prone and as such a Bushfire Assessment report is required to accompany the development application as submitted. The subject land is located within an area with a FDI of 80.

The development must conform to the specifications and requirements of the NSW Rural Fire Service outlined in *Planning for Bushfire Protection – a guide for land use planners, fire authorities, developers and home owners*. The development is for a 7 lot subdivision, with one lot containing an existing dwelling located on the south west portion of the property whilst the other lots will be vacant and accessed from a new road to be constructed as shown below, and as such must be assessed against the provisions for subdivision in bushfire-prone areas.

Aerial Photograph of subject land and proposed development



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2.0 SITE DESCRIPTION

2.1 Subject Site & Surrounding Land Uses

The subject land is approximately 3.086ha in area and is fronted by Perricoota Road, Merool Lane and Maiden Smith Drive, approximately 1000m from the Moama town centre.

Vegetation on the lot consists of mixture native and non-native trees predominantly located on the boundary and approximately 40 years old, being planted following the subdivision of the Maiden Smith Drive estate. There are also scattered trees surrounding the existing dwelling with large lawn areas. The north eastern portion of the property, approximately half, contains only a few trees other than the trees adjacent to the boundary. There is a corridor of native vegetation as shown orange on the map below which is located at the rear of the eastern properties fronting Charters Drive. The vegetation is largely box trees with only a few crowns touching. This vegetation is approximately 45m to the closest boundary of the subject land there is no vegetation located in any of the adjacent roads.

The property is currently accessed from Maiden Smith Drive which is sealed and in good condition and Lot 7, containing the existing dwelling will continue to use this access. A court is proposed to be constructed from which all 6 other lots will gain access from.

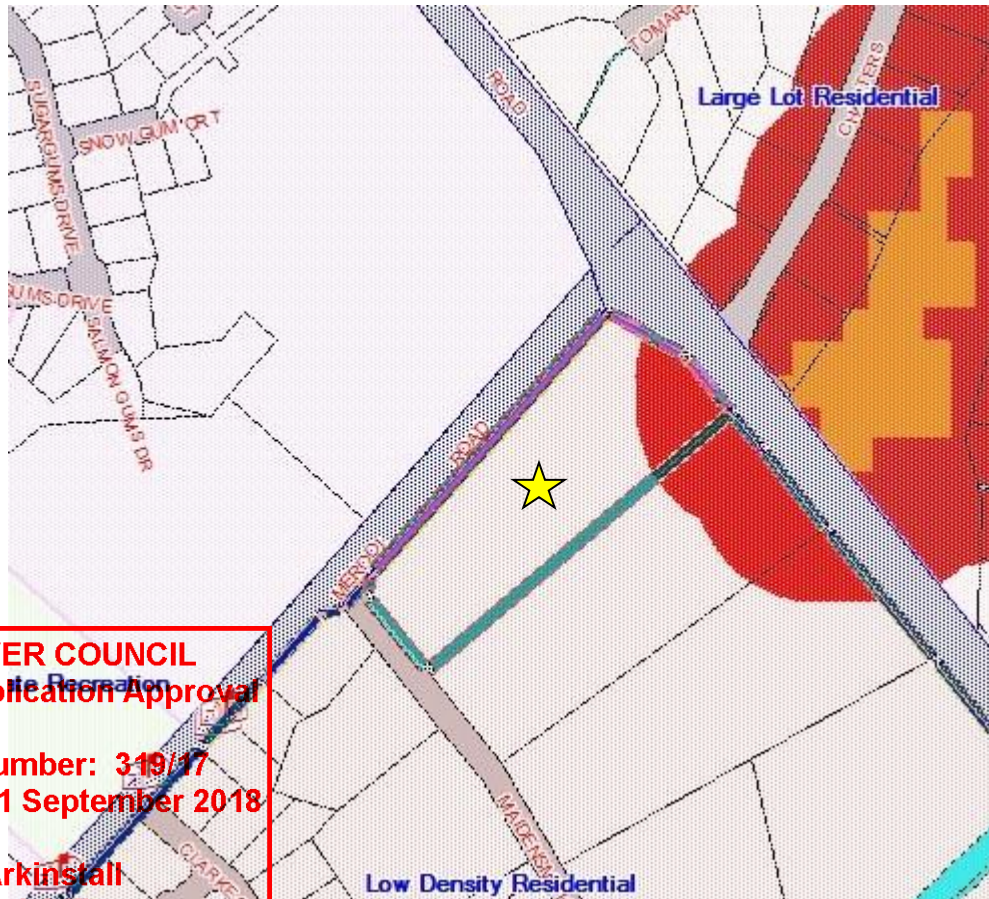
The subject land is currently zoned R2 (Low density residential) and located within a well-established residential area with the Maiden Smith Drive estate being developed approximately 40 years ago. Original lot sizes varied from 7000m² to 3.4ha but one of the larger lots, fronting Maiden Smith Drive has since been further subdivided into 4 lots (5000m² and above). All lots typically contain a brick/brick rendered dwelling with shedding. The dwelling on Lot 7 was constructed approximately 30 years ago and when construction begins on any of the vacant lots the owners will have to comply with all necessary RFS requirements relating to building materials etc. Land across Merool Lane is currently vacant but will be further developed in the very near future for residential housing. Land to the east is zoned as Large Lot Residential and contains brick/brick veneer dwellings approximately 20years old

The subject land is not shown to be affected by flooding and there are no significant environmental features affecting the land.

There are no threatened species, flora or fauna known within the local area and there are no areas of Aboriginal heritage known to the owners.

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When construction of the road begins all necessary works will be undertaken to minimise soil degradation, erosion and any other mitigating factors.



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3.0 PROPOSAL

This application is a 7 lot subdivision with one lot containing an existing dwelling whilst the other six lots, serviced by a new road, will be vacant.

4.0 STANDARDS FOR BUSH FIRE PROTECTION MEASURES FOR RESIDENTIAL AND RURAL RESIDENTIAL SUBDIVISIONS

Asset Protection Zones

Intent of measures:

To provide sufficient space and maintain reduced fuel loads, so as to ensure radiant heat levels at building are below critical limits and to prevent direct flame contact with a building.

Performance criteria

Acceptable solutions

| | | |
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| <p>The intent may be achieved where;</p> | | |
| <ul style="list-style-type: none"> Radiant heat levels at any point on a proposed building will not exceed 29kW/m² | <ul style="list-style-type: none"> An APZ is provided in accordance with the relevant tables/figures in Appendix 2 of this document. The APZ is wholly within the boundaries of the development site. Exceptional circumstances may apply (see section 3.3) | <p>An APZ of 10m around the existing dwellings is required for the site based on the site being located within and an FDI 80 fire area. The Vegetation Formation Class of the vegetation across Perricoota Road has been assessed as woodland and the effective slope of the site being Upslope/flat.</p> <p>There are exits from the site to the north west via Maiden Smith Drive then onto Merool Lane and Perricoota Road.</p> <p>The APZ is not wholly within the boundaries of the site as Perricoota Road is located between the subject land and vegetation so provides an already significant APZ. No vegetation is located within the road reserve.</p> <p>The closest point of the property to the vegetation is approximately 45m and as the lots are 80-90m deep and with regard to setbacks from the proposed road and size of current dwellings it is expected that there would be another 30-40m of APZ provided which will ultimately result in an APZ of approximately 80m.</p> <p>Any development on the vacant lots will be in accordance with the requirements of the PBP document.</p> |
| <ul style="list-style-type: none"> APZs are managed and maintained to prevent the spread of a fire towards the | <ul style="list-style-type: none"> In accordance with the requirements of 'Standards for Asset Protection Zones (RFS 2005). | <p>The requirements for APZ's on the vacant lots will be addressed at the time of building design.</p> |

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| building. | <i>Note - a Monitoring and Fuel Management Program should be required as a condition of development consent.</i> | |
| <ul style="list-style-type: none"> APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is negated | <ul style="list-style-type: none"> The APZ is located on lands with a slope less than 18 degrees. | <p>A new road is proposed to service 6 vacant lots and these lots will be on land which is well less than 18 degrees.</p> <p>The whole of the site and surrounding areas are generally flat.</p> <p>It is not expected that soil stability will be any way compromised and planting in the future should be completed in accordance with the aims and objectives outlined in the Planning for Bushfire Protection document.</p> |

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Access – Property Access

Intent of measures:

To provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupants faced with evacuation.

| Performance criteria | Acceptable solutions | |
|---|---|---|
| The intent may be achieved where; | | |
| <ul style="list-style-type: none"> Access to properties is provided in recognition of the risk to fire fighters and/or evacuation occupants. | <ul style="list-style-type: none"> At least one alternative property access road is provided for individual dwellings (or groups of dwellings) that are located more than 200 metres from a public through road. | <p>The existing dwelling is located approximately 80m from Maiden Smith Drive and the 6 proposed vacant lots are 80-90m deep so no dwelling will be located further than 200m from a public road.</p> <p>The size of all lots will ensure that there is adequate manoeuvrability for firefighting purposes.</p> |
| <ul style="list-style-type: none"> The capacity of road surfaces and bridges is sufficient to carry fully loaded firefighting vehicles. | <ul style="list-style-type: none"> Bridges clearly indicate load rating and pavements and bridges are capable of carrying a load of 15 tonnes Roads do not traverse a | <p>Ingress/egress from the existing dwelling is via a gravel driveway which is approximately 4.5m wide to Maiden Smith Drive which is</p> |

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| <ul style="list-style-type: none"> All weather access is provided | <p>wetland or to other land potentially subject to periodic inundation (other than a flood or storm surge).</p> | <p>sealed and in good condition. Ingress and egress to all the proposed vacant lots will be via a sealed road with concrete (or similar) driveways to the boundaries and designed in accordance with the PBP document.</p> <p>The proposed road will be in very close proximity to Perricoota Road ensuring quick evacuation if required.</p> |
| <ul style="list-style-type: none"> Road widths and design enable safe access for vehicles | <ul style="list-style-type: none"> A minimum carriageway width of four metres for rural-residential areas, rural landholdings or urban areas with a distance of greater than 70m from the nearest hydrant point to the most external part of the proposed building (or footprint) In forest, woodland and heath situations, rural property access roads have passing bays every 200 metre that are 20 metres long by 2 metres wide, making a minimum trafficable width of six metres at the passing bay. A minimum vertical clearance of four metres to any overhanging obstruction, including tree branches. | <p>The existing dwelling is accessed from Maiden Smith Drive which is sealed and in good condition with a width of approximately 5.5 metres.</p> <p>The proposed vacant lots will gain access from a newly constructed sealed road, intersecting with Merool Lane, and will be dedicated to council as a public road. The road will be approximately 80m long with an adequate turning circle radius and designed in accordance with the PBP document.</p> |
| | <ul style="list-style-type: none"> Internal road for rural properties provide a loop road around any dwelling or incorporate a turning circle with a minimum 12 metre outer radius. Curves have a minimum inner radius of six metres and minimal in number to allow for rapid access and egress. The minimum distance between inner and outer curves is six metres. The cross fall is not more than 10 | |

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| | <p>degrees</p> <ul style="list-style-type: none"> Maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads. Access to a development comprising more than three dwellings have formalised access by dedication of a road and not by right of way. | |
| <p><u>Services – Water, gas and electricity</u></p> <p>Intent of measures:</p> <p><i>To provide adequate water services for the protection of buildings during and after the passage of a bushfire, and to locate gas and electricity so as not to contribute to the risk of fire to buildings</i></p> | | |
| The intent may be achieved where; | | |
| <p>Reticulated water supplies</p> <ul style="list-style-type: none"> Water supplies are easily accessible and located at regular intervals. | <ul style="list-style-type: none"> Reticulated water supply to urban subdivisions uses a ring main system for areas with perimeter road. Fire hydrant spacing, sizing and pressures comply with AS 2419.1 – 2005. Where this cannot be met, the RFS will require a test report of the water pressures anticipated by the relevant water supply authority, once development has been completed. In such cases, the location, number and sizing of hydrants shall be determined using fire engineering principles. Hydrants are not located within any road carriageway. All above ground water and gas service pipes external to the building are metal, including and up to any taps. The provisions of parking on public roads are met. | <p>As part of the proposed works the existing council reticulated raw water main located in Merool Lane will be extended through the new road and connected to all the lots. Fire hydrants will be installed in accordance with council engineering design guide which will ensure easy access and adequate supply and pressure for firefighting purposes if required.</p> <p>The connection of services to any dwelling will be done in accordance with the requirements of the PBP document.</p> <p>Maiden Smith Drive road reserve is approximately 20 metres with wide grass and gravel shoulders which provides a large amount of area for parking.</p> |
| <p>Non-reticulated water supply area.</p> | <ul style="list-style-type: none"> Not applicable | <p>Not applicable</p> |

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| <ul style="list-style-type: none"> For rural-residential and rural developments (or settlements) in bush fire prone areas, a water supply reserve dedicated to firefighting purposes is installed and maintained. The supply of water can be an amalgam of minimum quantities for each lot in the subdivision (community titled subdivisions), or held individually on each lot. | | |
| <p>Electricity Services</p> <ul style="list-style-type: none"> Location of electricity services limits the possibility of ignition of surrounding bushland or the fabric of buildings | <ul style="list-style-type: none"> Where practicable, electrical transmission lines are underground. Where overhead electrical transmission lines are proposed: <ul style="list-style-type: none"> Lines are installed with short pole spacing (30 metres), unless crossing gullies, gorges or riparian areas; and No part of a tree is closer to a power line than the distance set out in accordance with the specifications in 'Vegetation Safety Clearances' issued by Energy Australia (NS179, April 2002) | <p>The existing electricity supply to the dwelling is overhead and vegetation clearance to the lines is regularly undertaken by Essential Energy in accordance with their regulations.</p> <p>Power to service the new lots will be located in the proposed road and will all be underground.</p> |
| <p>Gas Services</p> <ul style="list-style-type: none"> Location of gas services will not lead to ignition of surrounding bush land or the fabric of buildings. | <ul style="list-style-type: none"> Reticulated or bottled gas is installed and maintained in accordance with AS 1596 - 2002 and the requirements of relevant authorities. Metal piping is to be used. All fixed LPG tanks are kept clear of all flammable | <p>Gas will be installed in the new road to service the vacant lots and will be underground.</p> |

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| | <p>materials to a distance of 10 metres and shielded on the hazard side of the installation.</p> <ul style="list-style-type: none"> • If gas cylinders need to be kept close to the building, the release valves must be directed away from the building and at least 2 metres away from any combustible material, so that they do not act as catalysts to combustion. Connections to and from gas cylinders are metal. • Polymer sheathed flexible gas supply lines to gas meters adjacent to buildings are not to be used. | |
|--|--|--|

5.0 CONCLUSION

This report leads to the following conclusions:

- The proposed development for a 7 lot subdivision does not alter the existing land use or significantly change the interface of the property with adjacent land, and will not increase the risk to life or property.
- The existing dwelling generally complies with the current planning controls and standards for bush fire protection measures and the requirements of the PBP document will be addressed at time of construction on each lot so it is considered that the proposed development meets the requirements of the EPA 1997 & the Rural Fires Act 1997.

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