

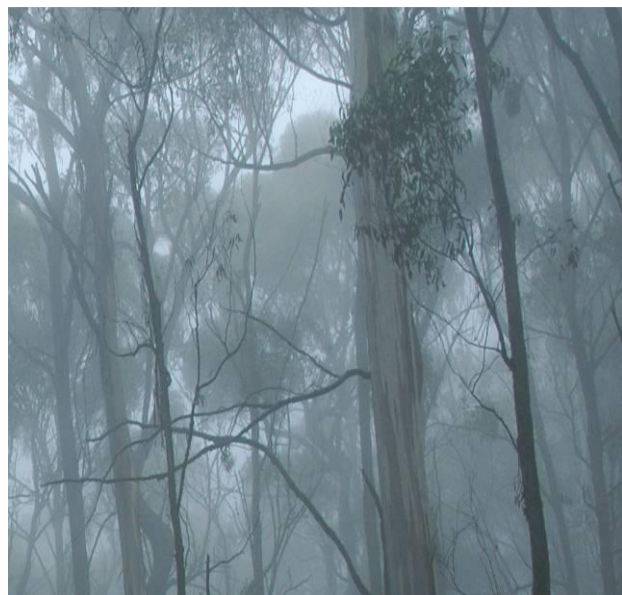


## Bushfire Site Compatibility Assessment

Merewether Golf Club – 40 King Street, Adamstown

Prepared for  
**Third Age Villages Pty Ltd**

4 September 2019



## DOCUMENT TRACKING

Item	Detail
Project Name	Bushfire Site Compatibility Assessment – Merewether Golf Club, 40 King Street Adamstown
Project Number	19HNG_13487
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Status	Final
Version Number	6
Last saved on	4 September 2019

This report should be cited as 'Eco Logical Australia September 2019. Bushfire Site Compatibility Assessment – Merewether Golf Club – 40 King Street, Adamstown'.

## ACKNOWLEDGEMENTS

This document has been prepared by Eco Logical Australia Pty Ltd.

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# 1 Introduction

## 1.1 Background

This report was commissioned by Third Age Villages Pty Ltd to investigate the bushfire protection requirements associated with the potential development of 40 King Street, Adamstown (Lots 1-3 DP 229558, Lot 4 DP 1223244, Lot 3 DP 515310 and Lot 2 DP 239405), hereafter known as the 'subject land' and shown in **Figure 1**. This report presents an assessment of the bushfire constraints associated with a preliminary proposal to develop the subject land for a Seniors Living development. The proposed development is located wholly within Lots 1-3 DP 229558 and Lot 4 DP 1223244.

The proposed Seniors Living development is classified as Special Fire Protection Purpose (SFPP) development under the pre-release version of 'Planning for Bush Fire Protection 2018' (NSW Rural Fire Service (RFS) 2018) and the development will require a Bush Fire Safety Authority from the RFS under Section 100B of the *Rural Fires Act 2007*.

Please note this report is suitable for the purpose for which it was commissioned but is not a bushfire assessment report suitable for submission with a Development Application.

This Bushfire Site Compatibility Statement (BSCS) is valid as of the date of issue and with imminent changes in bushfire related legislation and policy (indicatively 1 September 2019), a review of the advice may be required post enactment of the legislation. Similarly, it should not be assumed that the specifics of a development layout/design will comply with this BSCS as site specific factors often alter a bushfire risk assessment and protection requirements. Further assessment is required if there are changes to development uses or a change in State legislation or policy, and a detailed assessment should also be undertaken once development concept and layout are prepared.

The proposed development is located within Lots 1-3 DP 229558 and Lot 4 DP 1223244 which is not mapped as bush fire prone land under Newcastle Council's Bush Fire Prone Land Map. However State Environmental Planning Policy (SEPP) 2004 Clause 27 states a development of this nature is to consider bush fire prone land within the vicinity.

Under Newcastle Council's Bush Fire Prone Land Map, Lot 3 DP 515310 is mapped as bush fire prone land as it contains both Category 1 and Category 2 vegetation at the southern end of the allotment which has the potential to sustain a bushfire or contribute to bushfire attack (see **Figure 2**).

## 1.2 Location and description of subject land

The subject land is an approximately 38 ha golf course consisting of managed greens, fairways and small unmanaged stands of vegetation. Surrounding development consists of existing residential development and associated infrastructure.

The subject land is zoned as RE2 Private Recreation under the Newcastle Local Environment Plan (NLEP) 2012 (NSW Government 2012).





Figure 1: Location of subject land





Figure 2: Excerpt from Newcastle Council's Bush Fire Prone Land Map

## 2 Methods and approach

This bushfire assessment followed the methods and approach outlined in **Table 1** below.

**Table 1: Methods and approach**

Step	Tasks	Considerations
Review	A review of relevant reports and plans occurred.	Newcastle Council Bush Fire Prone Land Map; Newcastle LEP data
Desk top analysis	Review and analysis of all available mapping layers in GIS relevant to bushfire hazard.	GIS layers include: satellite imagery, vegetation mapping, topographical data (e.g. contours), biodiversity layer, land zoning and other environmental protection layers.
Assessment	Determine all relevant bush fire protection measures which may constraint development from a bushfire perspective.	Constraints analysis based on Planning for Bush Fire Protection (PBP) 2018 methodology and other related RFS policy relating to SFPP developments in bush fire prone areas.
Reporting	Preparation of bushfire constraints analysis report.	Summaries the bushfire constraints which would apply to a SFPP for development of bushfire prone land.

RFS approval is required under Section 100B of the *Rural Fires Act 2007* for SFPP developments. The specific development types which are considered as SFPP are listed within Section 100 B of the *Rural Fires Act 1997* and Section 46 of the *Rural Fires Regulation 2013* and include Seniors Living developments. The Pre-release version of 'Planning for Bush Fire Protection 2018' (PBP 2018) also includes a 'place of worship' as a SFPP development category. Due to the vulnerable nature of occupants of SFPP developments, there is a greater emphasis on emergency management as well as on separation (i.e. setbacks) from the hazard. This is through the reliance on larger Asset Protection Zones (APZ) as well as the combination of other bushfire protection measures.

The Pre-release version of PBP 2018 was released in early September 2018 however, the legislation enacting PBP 2018 will not be changed until 1 September 2019 (date to be confirmed). Until this legislation change occurs, the 2006 version of PBP is the legislated version of PBP and the basis for compliance. However, as this assessment is for constraints purposes and a development application is likely post September 2019, the advice is based on Pre-release PBP 2018 requirements. The 2019 version of PBP is not expected to make significant changes but an update of this advice may be wise following the gazettal of PBP 2019.

This constraints analysis identifies the minimum and recommended bushfire requirements required for SFPP development to achieve compliance with the above legislation and related policy.



## 3 Bushfire hazard assessment

An assessment of the bushfire hazard is necessary to determine bushfire protection measures such as APZ locations and dimensions. The vegetation communities (bushfire fuels) and the effective slope that combine to create the bushfire hazard that may affect bushfire behaviour impacting the subject land are detailed in the following sections.

### 3.1 Vegetation communities influencing bushfire

The 'predominant vegetation' influencing fire behaviour approaching and within the subject land is assessed in accordance with the methodology specified within PBP. The Newcastle Council Bush Fire Prone Land Map (**Figure 2**) identifies the bushfire hazard as the vegetation within Lot 3 DP 515310, which is mapped as 'Category 2 Vegetation'.

As shown in **Figure 3** the predominant vegetation affecting the subject land is the Category 2 vegetation located to the south of the proposed development. This vegetation has been identified as Coastal Foothills Spotted Gum – Ironbark Forest (Lower Hunter 2003) which is classified as 'forest' under PBP.

In all other directions, there are managed lands in the form of existing residential development and associated infrastructure.

### 3.2 Slopes influencing bushfire

The 'effective slope' that most influences fire behaviour approaching and within the subject land is assessed in accordance with the methodology specified within PBP. This is conducted by measuring the worst-case scenario slope under vegetation in 100 m transects from the development boundary.

The effective slope under the bushfire hazard falls into the PBP slope category 'all upslopes and flat land' however should a 100 m transect be measured from the development toward the hazard there is a small distance of '0-5 degrees downslope'. As such a conservative approach has been taken for this assessment, classifying the slope as '0-5 degrees downslope'.



## 4 Bushfire protection measures

PBP requires the assessment of a suite of bushfire protection measures to be assessed for SFPP development, as listed in **Table 2** below and are discussed in detail in the remainder of this section.

**Table 2: PBP bushfire protection measures**

Bushfire protection measures	Considerations
Asset Protection Zones (APZ)	Location and dimension of APZ setbacks from vegetation including prescriptions of vegetation management within the APZ.
Access	Assessment to include access and egress in and out of a developable area such as alternate access, operational response and evacuation options. APZ perimeter access to be considered as is design standards of public roads and any fire trails.
Water supply and other utilities	List requirements for reticulated water supply and hydrant provisions, and any static water supplies for firefighting.
Building construction standards	Provide a guide on the application of construction standards for future buildings.
Landscaping	Principle aim to prevent flame impingement on buildings, provide defendable space for property protection, reduce fire spread, filter embers and reduce wind speed
Emergency Management Planning	Principle aim to provide suitable emergency and evacuation (and relocation) arrangements for occupants of special fire protection purpose developments.
Environmental issues	RFS requires sufficient information to ascertain whether environmental values are a constraint to development. The RFS is not providing an approval in relation to the loss or removal of these environmental assets, that is the role of the relevant consent authority.

### 4.1 Asset Protection Zones (APZ)

#### 4.1.1 APZ location and dimension

PBP 2018 has been used to determine the width of APZ for the proposed development using the vegetation and slope data identified in **Sections 3**. **Table 3** details the results of this preliminary assessment and include APZ requirements for SFPP development which are also shown in **Figure 3**. The proposed development exceeds the minimum SFPP APZ requirements of PBP 2018.



**Table 3: Preliminary determination of APZ**

Transect # (Figure 3)	Direction from subject land	Slope <sup>1</sup>	Vegetation <sup>2</sup>	PBP 2018 SFPP required APZ <sup>3</sup>	Available APZ	Comment
1	South	0-5 degrees downslope	Forest	79 m	≥ 79 m	APZ provided by managed lands within the golf course.

<sup>1</sup> Effective slope assessed over 100 m from proposed development where the bushfire hazard occurs.

<sup>2</sup> Predominant vegetation classification within 140 m from proposed development.

<sup>3</sup> Minimum APZ for all vegetation formations required by PBP 2018 acceptable solution for SFPP development (Table A1.12.1).

#### 4.1.2 Vegetation management within the subject land

Landscaping within the APZ specified in **Table 3** is to achieve the specifications of an Inner Protection Area (IPA) as described in PBP 2018 and as outlined below:

##### *Trees*

- 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 2 m above ground;
- canopies should be separated by 2 to 5 m; 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;
- 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*

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

#### 4.1.3 Building construction standard (BAL)

Most buildings within a bush fire prone area need to be constructed to an appropriate bushfire construction standard. Construction standards are governed by the Building Code of Australia (BCA) which calls up Australian Standard (AS) 3959-2009 'Construction of buildings in bushfire-prone areas' (Standards Australia 2009). PBP 2018 also applies variations to the construction standards of AS 3959-2009 and must be consulted.

Construction standards for SFPP development depend on the type of development proposed, however a construction level of BAL-12.5 under AS 3959-2009 is the acceptable solution given the enlarged APZs for SFPP development.

#### 4.1.4 Multi-storey development

PBP 2018 states 'Residential buildings exceeding three storeys in height are considered multi-storey buildings'. Whilst this relates to residential development, RFS have recently raised this for consideration on another SFPP development.

There are additional considerations associated with multi-storey residential buildings, and the key issues are summarised in **Table 4** (below).

A Bushfire Engineering Brief (BEB) may need to be prepared for proposed multi-storey components of the development, this should form part of a pre-DA meeting with the RFS to determine the need for a BEB based on PBP 2018 table below.

**Table 4: Issues and technical considerations specific to multi-storey residential development (Table 8.2.2)**

Issue	Specific Concern	Technical Considerations
Population	Impact on existing community and infrastructure	What capacity does the existing infrastructure have to allow evacuation of existing and proposed residents in the event of a bush fire?
Location of Building	Locating on ridge tops emphasises the risk of convective plume interaction and wind related impacts.	Consider locating the building away from ridge tops. If unavoidable, what is the impact on modelling and risk to the building?  Is this risk appropriate for the building and occupant numbers?
Egress	Exposure to bush fire prone vegetation – which elevations?	How does the emergency evacuation procedure take account of the location of bush fire prone vegetation?
Building Construction	Building façade – how does this perform in a bush fire scenario, i.e. subjected to certain levels of radiant heat.	What material is proposed? How does this comply with AS 3959? Is this appropriate for the design fire scenario?
	Balconies may contain external features which could ignite and contribute to building ignition and fuel loads	Are there balconies proposed? What may be stored on the balconies? Can there be restrictions on what is stored on the balconies due to fire risk?
Car Parking	Lower storey car park could be subject to ember attack and high radiant heat loads igniting multiple vehicles at one time.	How does the warning and suppression system take account of the increased fuel load beneath the residential portion of the building?  Where are exits located? Are they guiding occupants away from the car park?
Height of Building	Different elements of the flame could have different impacts on different levels of the building. The whole building could be impacted by ember attack and multiple floors could be alight simultaneously.	What are the flame dimensions, including the flame angle?  Where is the hottest part of the flame located? How would this impact on the proposed building?  How would the warning and suppression systems in the building cope with this?
Other Engineering Considerations	Access for firefighters may be restricted or challenging.	What would this mean for fire suppression?
	Risk implications of floor to floor fire spread.	How would warning and suppression systems take account of this? What would this mean for evacuation?

## 4.2 Access provisions

SFPP development is required to comply with requirements of Table 6.4b of PBP 2018 (**Table 6**).

The proposed development is required to provide two alternate egress routes and destinations to a safer place (such as Adamstown or Hamilton South) under PBP 2018. The proposed development is located within an existing golf course with primary access off King Street and is bordered by existing residential development to the north, east and south and Bullecourt Barracks to the west (**Figure 1**). Secondary access was investigated extensively but was not feasible due to the limited public road frontage.



In lieu of formal secondary access, the following provisions are proposed to satisfy this performance criterion that 'roads are designed to allow safe access and egress for firefighting vehicles while occupants are evacuating':

- Offsite evacuation of this development is unlikely to ever be required during a bushfire event as the hazard to the south is small and located a significant distance ( $\geq 79$  m) from the development necessitate offsite evacuation;
- If a fire occurred in this small hazard under an FFDI 100 it would consume the full perimeter of the hazard within minutes. Under the best possible fire detection/reporting and evacuation notification system and perfect evacuation response by residents it may take as much as 2 hours to complete an offsite evacuation;
- Within this time the hazard would be completely burned out or flames would abut the perimeter road precluding the safety assumed under early evacuation, and/or the rapid response of the local FRNSW Brigade (expected to be <7 minutes) would have extinguished the fire or at least removed any need for evacuation;
- The Bushfire Emergency and Evacuation Plan that will be developed for the site would include triggers to be considered for the stay on site and/or evacuation options based on the bush fire risk.

Furthermore, an appropriate level of bushfire protection is achieved by:

- The extensive areas of managed land on the subject land and surrounding lands;
- The remnant nature of the vegetation on the subject land, a reliable indicator of lower bushfire risk;
- Proposed development exceeds PBP 2018 required APZ;
- The development will be constructed to BAL-12.5 along with the additional ember protection provisions of PBP 2018;
- The primary bushfire threat in the locality is south-west, which is uphill from the proposed development; and
- Emergency services have direct access to the bushfire hazard from the end of Henry Street (Lot 11 DP 237615) in the event of fire.

If required, the following can be provided:

- A loop road around the buildings (either compressed ground or paved) to provide emergency service access to all areas of the development; and/or
- An 'emergency vehicle access track' through to June Street (east).

Both the emergency vehicle access track and loop road are required to comply with 'NSW Fire Brigades Guidelines for Emergency Vehicle Access Policy No. 4':

- Road capacity 27,500kg;
- Carriageway width of 6 m; and
- Clearance height of 4.5 m.

In the past NSW RFS has approved the use of fairways as part of a fire trail network for alternative emergency vehicle access (DA SF10425 & Golf Course Way, Sussex Inlet – Approved April 2018).

Pre-DA advice application was submitted to RFS 17 June 2019 seeking comment regarding the above performance solution (**Appendix B**). A response was received from RFS raising no objection to the proposed development, subject to compliance with Section 4.2.7 of PBP 2006 (or any subsequent version) exempting the provision of a secondary access, a copy of which is provided in **Appendix C**.

Assessment will be required of detailed civil plans (e.g. assessments of road widths, curves radius etc) against the requirements of PBP 2018 (**Table 6**).

### **4.3 State Environmental Planning Policy (SEPP) Clause 27(2)**

Clause 27(2) of the SEPP requires the proposed development to demonstrate compliance with;

*(f) the road network within the locality and the capacity of the road network to cater for traffic to and from existing development if there were a need to evacuate persons from the locality in the event of a bush fire.*

As per section 4.2 of this report, offsite evacuation of the development during a bushfire is highly unlikely and as such there would be minimal impact to the traffic or road network. Furthermore, the traffic impact statement (SECA 2019) concludes the proposed development will not impede traffic, access or parking for the existing surrounding development.

Ausgrid were consulted regarding any impact the proposed development may have in relation to the proximity of the electrical network infrastructure running across the site and the increased use of the access road near to the infrastructure. Ausgrid have raised no objection to the proposed development provided all conditions detailed in Ausgrid Consent Letter Ref 1900086444 dated 18 October 2018 are complied with. A copy of the consent letter and Ausgrid consultation is provided in **Appendix D**.

*(g) the adequacy of access to and from the site of the proposed development for emergency response vehicles.*

As per section 4.2 of this report, provision of a loop road around the buildings and/or provision of an 'emergency vehicle track' through to June Street (east) can be provided. This is subject to RFS consultation.

*(h) the nature, extent and adequacy of bush fire emergency procedures that are able to be applied to the proposed development and its site.*

Development Consent will require a suitable Emergency Management and Evacuation Plan addressing emergency evacuation arrangements for occupants as per section 4.5 of this report.

*(i) the requirements of New South Wales Fire Brigades [now Fire and Rescue NSW (FRNSW)].*

The development site is located within FRNSW Merewether Brigade area. Merewether Brigade was contacted 21 June 2019 to determine if they had a Pre-Incident Plan for the Merewether Golf Course and/or they wished to comment on FRNSW requirements in relation to this development. Capt. Andrew Yeates stated there was no Pre-Incident Plan for the Merewether Golf Course on record and no concerns were raised with a Seniors Living development being proposed on the site.

## **4.4 Utilities**

### **4.4.1 Water supply**

The proposed development will be serviced by reticulated water.

No constraints were identified with regards to meeting water supply requirements. These services will need to be designed and installed according to PBP and fire hydrant spacing, design and sizing must comply with AS 2419:2017 'Fire hydrant installations – System design, installation and commissioning' (Standards Australia 2017).

#### 4.4.2 Electricity and gas

No constraints were identified with regards to meeting electricity supply requirements. These services will need to be designed and installed according to PBP.

Any gas services are to be installed and maintained in accordance with AS/NZS 1596:2014 'The storage and handling of LP Gas' (Standards Australia 2014).

#### 4.5 Emergency management procedures

SFPP developments must provide suitable emergency management plans addressing emergency evacuation arrangements for occupants. Acceptable solutions for emergency management plans are covered in Table 6.4d of PBP and not considered a constraint to the development however any future proposal will need to comply with the relevant criteria. As per the RFS Pre-DA advice (**Appendix C**), the Bushfire Emergency and Evacuation Plan (BEP) will include comprehensive information on;

- The difference between Onsite Refuge or Offsite Evacuation;
- The decision making process to seek Onsite Refuge or Offsite Evacuation;
- Circumstances under which onsite refuge is to occur;
- Preparedness for onsite refuge;
- Circumstances under which offsite evacuation is to occur;
- Off-site evacuation procedure;
- Responsibilities of personnel including the establishment of an Emergency Control Organisation;
- Monitoring of fire danger and bushfire situation.

The BEP will also include both Preparedness and Evacuation matrices that link Fire Danger Rating and proximity of fire to guide decision making in relation to bushfire readiness and evacuation response.

No constraints were identified with regards to meeting emergency management procedure requirements.

#### 4.6 Environmental issues

Environmental issues will need to be assessed separately to this bushfire advice with the impacts of the bushfire protection measures forming part of any environmental impact assessment.



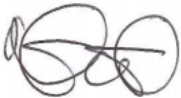
## 5 Conclusion

This report presents a Bushfire Site Compatibility Assessment of the proposed SFPP development of the subject land.

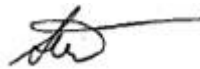
From a bushfire perspective, the subject land can achieve the required bushfire protection measures for SFPP development under Acceptable or Performance Solutions within PBP, **Table 5** below outlines the bushfire protection measures.

**Table 5: Bushfire Protection Measures**

Development type	PBP 2018 SFPP required APZ	Available APZ	Construction Standard – Bushfire Attack Level (BAL)	Access
SFPP	79 m	≥ 79 m	BAL-12.5	SFPP development is required to provide two access/egress points to the existing public road network.  In lieu of secondary access a performance solution was prepared (refer section 4.2) and submitted to RFS for comment. Response from RFS has not yet been received.



Natalie South  
**Bushfire Consultant**



Susan Courtney  
**Senior Bushfire Planner**

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- Standards Australia 2017. *Fire hydrant installations System design, installation and commissioning*. SAI Global, Sydney.

# Appendix A – Access

**Table 6: Performance Criteria for SFPP development.**

	Performance Criteria	Acceptable Solutions
The intent may be achieved where:		
<b>FIREFIGHTING VEHICLES</b>	<ul style="list-style-type: none"> <li>• firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation</li> </ul>	<ul style="list-style-type: none"> <li>• SFPP access roads are two-wheel drive, all-weather roads, and</li> <li>• access is provided to all structures and hazard vegetation traffic management devices are constructed to not prohibit access by emergency services vehicles</li> <li>• access roads must provide suitable turning areas in accordance with Appendix 3</li> </ul>
<b>ACCESS ROAD CAPACITY</b>	<ul style="list-style-type: none"> <li>• the capacity of access roads is adequate for firefighting vehicles</li> </ul>	<ul style="list-style-type: none"> <li>• the capacity of road surfaces and any bridges/ causeways is sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes); bridges and causeways are to clearly indicate load rating</li> </ul>
<b>ACCESS TO WATER</b>	<ul style="list-style-type: none"> <li>• there is appropriate access to water supply</li> </ul>	<ul style="list-style-type: none"> <li>• hydrants are located outside of parking reserves and road carriageways to ensure accessibility to reticulated water for fire suppression, and</li> <li>• hydrants are provided in accordance with AS 2419.1:2017</li> <li>• there is suitable access for a Category 1 fire appliance to within 4m of the static water supply where no reticulated supply is available</li> </ul>
<b>PERIMETER ROADS</b>	<ul style="list-style-type: none"> <li>• Perimeter access roads are designed to allow safe access and egress for medium rigid firefighting vehicles while occupants are evacuating as well as providing a safe operational environment for emergency service personnel during firefighting and emergency management on the interface</li> </ul>	<ul style="list-style-type: none"> <li>• there are two-way sealed roads, and</li> <li>• 8m carriageway width kerb to kerb; and</li> <li>• parking is provided outside of the carriageway width; and</li> <li>• hydrants are to be located clear of parking areas; and</li> <li>• there are through roads, and these are linked to the internal road system at an interval of no greater than 500m; and</li> <li>• curves of roads have a minimum inner radius of 6m; and</li> <li>• the maximum grade road is 15° and average grade is 10°; and</li> <li>• the road crossfall does not exceed 3°; and</li> <li>• a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.</li> </ul>
<b>NON-PERIMETER ROADS</b>	<ul style="list-style-type: none"> <li>• Non-perimeter access roads are designed to allow safe access and egress for medium rigid firefighting vehicles while occupants are evacuating</li> </ul>	<ul style="list-style-type: none"> <li>• minimum 5.5m width kerb to kerb; and</li> <li>• parking is provided outside of the carriageway width; and</li> <li>• hydrants are located clear of parking areas; and</li> </ul>

	Performance Criteria	Acceptable Solutions
		<ul style="list-style-type: none"><li>• there are through roads, and these are linked to the internal road system at an interval of no greater than 500m; and</li><li>• curves of roads have a minimum inner radius of 6m; and</li><li>• the maximum grade road is 15° and average grade is 10°; and</li><li>• the road crossfall does not exceed 3°; and</li><li>• a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.</li></ul>


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## Appendix B – Pre-DA Advice Application



### PRE-DA APPLICATION FORM

<b>Applicant Details</b>			
Name:	Natalie South	Company Name:	Eco Logical Australia
Postal Address:	PO Box 170 Huskisson NSW 2540		
Phone:	02 4201 2266	Email:	<a href="mailto:natalies@ecoaus.com.au">natalies@ecoaus.com.au</a>
<b>Site Details</b>			
Street Address:	40 King Street, Adamstown NSW		
Lot & DP No.:	Lots 1-3 DP 229558 and Lot 4 DP 1223244		
<b>Details of the Development Proposal</b>			
Development type:	<input type="checkbox"/> Subdivision / Dual Occupancy	<input checked="" type="checkbox"/> SFPP	<input type="checkbox"/> Residential Infill
Description of proposed development / use:	Proposed Senior's Living development.		
Information attached:	Aerial and development footprint.		
<b>Issues for Discussion</b>			
Summary of particular issues to be discussed / areas of potential non-compliance:	Access non-compliance: single formal access/egress.  Refer more detail on second page. We are wanting pre-DA advice in relation to this non-compliance for the purpose of the preparation of a 'Site Compatibility Statement'.		
<b>Declarations</b>			
Are you or any party involved in this pre-DA application:		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
1. A member of or engaged by the NSW RFS?			
2. An employee or engaged by the relevant consenting authority?			
<i>I understand that the advice given will be based on the information provided and will not prejudice the outcome of any subsequent determination.</i>			
Signature:		Date:	17 June 2019

### **Access Non-compliance – single access/egress**

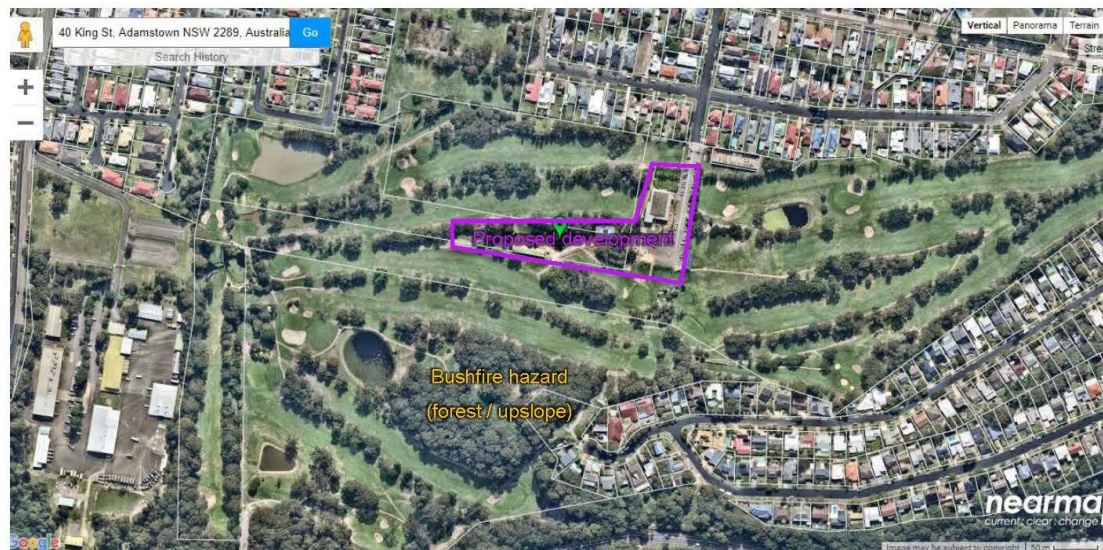
The proposed development is located within an existing golf course with primary access off King Street and is bordered by existing residential development to the north, east and south and Bullecourt Barracks to the west. Secondary access was investigated extensively but was not feasible due to the limited public road frontage,

In lieu of secondary access we propose the following to meet this performance criteria:

- Offsite evacuation of this development is unlikely to ever be required during a bushfire event as the hazard to the south is too small and located too far from the development justify offsite evacuation.
- If a fire occurred in this small hazard under an FFDI 100 it would consume the full perimeter of the hazard within minutes. Under the best possible fire detection/reporting and evacuation notification system and perfect evacuation response by residents it would take at least 2 hours to complete an evacuation.
- Within this time the hazard would be completely burned out or flames would abut the perimeter road precluding the safety assumed under early evacuation, and/or the rapid response of the local FRNSW Brigade (expected to be <7 minutes) would have extinguished the fire or at least removed any need for evacuation.
- The bushfire emergency and evacuation plan that will be developed for the site would recommend residents do not evacuate offsite during a bushfire event.
- Client is open to providing a loop road around the buildings (either compressed ground or paved) to provide emergency services access to all areas of the development; and
- Client is open to providing an 'emergency track' through to either Drew Street (west) or June Street (east).

Furthermore, an appropriate level of bushfire protection is achieved by:

- The extensive areas of managed land on the subject land and surrounding lands;
- The remnant nature of the vegetation on the subject land, a reliable indicator of lower bushfire risk;
- Proposed development exceeds PBP 2018 required APZ by >20 m;
- The primary bushfire threat in the locality is south-west, which is uphill from the proposed development; and
- Emergency services have direct access to the bushfire hazard from the end of Henry Street (Lot 11 DP 237615) in the event of fire.



## Appendix C – RFS Pre-DA Advice



### PRE-DA ADVICE SUMMARY

**Applicant:** Natalie South – Eco Logical Australia  
**Subject:** Proposed Seniors Living at 40 King Street Adamstown  
RFS Ref. DOC19/71604

#### Details of the proposal

- ☒ SFPP Senior's Living
- ☐ Residential subdivision
- ☐ Other

#### Bush fire protection issues discussed

- ☐ Hazard Assessment
- ☐ Asset Protection Zones
- ☒ Access Non-compliant access
- ☐ Construction Standards
- ☐ Services
- ☐ Emergency and Evacuation Planning

#### Documentation / plans referenced

Information submitted with the pre-DA application form

#### Advice Provided

- No objection is raised in principle to the proposed development, subject to compliance with section 4.2.7 of *Planning for Bush Fire Protection 2006* (or any subsequent version) exempting the provision of a secondary access.
- The bush fire risk to the proposed development is considered to be low given its location within managed lands and its setbacks to the bush fire prone vegetation.
- The Bush Fire Emergency Management and Evacuation Plan for the facility is not to exclude evacuation as an option, but instead include triggers to be considered for the stay on site and/or evacuation options based on the bush fire risk.



#### Disclaimer

RFS advice is based on information provided and policy and legislative requirements applicable at the time. The advice should be copied into, or referenced in, any subsequent development application.

All efforts are made to identify issues of relevance and likely concern with the preliminary proposal. However, the comments and views in this document are based only on the plans and information submitted for preliminary assessment and discussion at the pre-DA meeting. You are advised that: -

- > The views expressed may vary once detailed plans and information are submitted and formally assessed in the development application process, or as a result of issues contained in submissions by interested parties;
- > Given the complexity of issues often involved and the limited time for full assessment, no guarantee is given that every issue of relevance will be identified;
- > Amending one aspect of the proposal could result in changes which would create a different set of impacts from the original plans and therefore require further assessment and advice; and,
- > The Pre-DA advice given does not bind Council officers, the elected Council members, or other parties to the DA process.

Signed:



Kalpana Varghese  
Team Leader, Development Assessment and Planning  
Planning and Environment Services (East)



Nika Fomin  
Manager  
Planning and Environment Services (East)

Date: 16 July 2019

## Appendix D – Ausgrid consultation

**From:** [Troy Tracey](#)  
**To:** [South, Natalie](#)  
**Subject:** Ausgrid Consultation: Merewether Golf Course  
**Date:** Wednesday, 19 June 2019 4:46:30 PM  
**Attachments:** [image003.png](#)

**CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments.

Natalie

Based on concept provided by Mr Tim Mackiewicz on 21 Aug 2018. Ausgrid have no objection to proposed development provided all conditions detailed in *Consent Letter Ref 1900086444* forwarded by myself to Mr Mackiewicz on 18 October 2018 are complied with.

Ausgrid will assess clearances from final proposal to electrical infrastructure during Development Application stage of project.

As stated in Consent Letter. Ausgrid require 24Hr access to our infrastructure. No impediment to access should be created as a result of the development.

Regards

**Troy Tracey**

Engineer | Street Lighting (On Loan)

[cid:image001.png@01D4B326.4D344F70](#)



Ph: 02 49101264 M: 0407241231

Email: [ttracey@ausgrid.com.au](mailto:ttracey@ausgrid.com.au)

Please consider the environment before printing this email.

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**From:** South, Natalie <[NatalieS@ecoaus.com.au](mailto:NatalieS@ecoaus.com.au)>

**Sent:** Monday, 17 June 2019 4:15 PM

**To:** Troy Tracey <[ttracey@ausgrid.com.au](mailto:ttracey@ausgrid.com.au)>

**Subject:** Merewether Golf Course

Hi Troy,

Sorry I tried giving you a call to discuss but I am having trouble with my phone. I am contacting you in relation to the proposed aged care development at Merewether Golf Club and specifically to the consent you provided Catalyst October 2018 (attached).

I am in the process of preparing bushfire advice for the proposed development and need to confirm there is no concern from Ausgrid in relation to the proposed development. i.e.

- Proximity of the electrical network infrastructure running across the site.
- Increased use of the access road near your infrastructure;

If you are able to confirm your thoughts/concerns.



18 October 2018



Mr Tim Mackiewicz  
Catalyst Project Consulting  
110 King St, Newcastle  
NSW 2300

145 Newcastle Road  
Wallsend NSW 2287  
All mail to PO Box 487  
Newcastle NSW 2300  
T +61 2 131 525  
[www.ausgrid.com.au](http://www.ausgrid.com.au)

Dear Tim

## **Proposed Development Merewether Golf Course**

In response to your request for advice received on 31 August 2018 regarding development in proximity of Ausgrid assets within Merewether Golf Course.

### **Ausgrid Assets Within Merewether Golf Course**

Ausgrid has multiple overhead electricity circuits within Merewether Golf Course grounds. Circuits are 132000 Volt and 33000 Volt Transmission lines and 11000 Volt & 415 Volt Distribution mains.

These Ausgrids assets are protected in their current location under Section 53 of The Electricity Supply Act for the purpose of repairing, replacing, modifying or upgrading.

### **Conditions that apply to Development in Proximity to Ausgrid Assets**

1. All construction works on or near the Ausgrid powerlines must adhere to the Workcover NSW – Work Near Overhead Powerlines: Code of Practice, 2006
2. Ausgrid requires 24 hour access along the route of mains for plant and personnel. For the purpose of exercising its rights under Section 53 of ESA Ausgrid may cut fences and/or walls and install gates in them.
3. Ausgrid is not responsible for the reinstatement of any finished surface resulting from Ausgrids access.
4. Any alterations required to facilitate development will be a Contestable project at the cost of the developer.
5. An easement would need to be established over any mains relocated as part of the development.
6. Metallic fencing is generally not permitted to extend away from transmission mains unless an insulating section is installed, at least 3 metres wide.
7. All metal work within the proximity of electricity mains including metallic fencing, is to be locally earthed by a qualified electrician via a 50 sq. mm stranded copper, insulated earthwire bonded to a copper-clad earth-stake driven at least 1.6 metres into the ground.
8. The erection of minor structures such as clothes hoists, barbecues, and the like are permitted proximity of electricity mains provided they do not exceed a height of 2.5 metres if climbable or 4.6m if not climbable, and the metallic components are earthed. The positioning of such structures should allow a 5m wide vehicular access along the full length of the route of the electricity mains. Ausgrid reserves the right to remove such structures where required for safety, access and maintenance. Request must be submitted to Ausgrid for approval
9. Any change to ground levels must be submitted to Ausgrid for approval.

10. No vehicles, plant or equipment having a height exceeding 4.6 metres when fully extended are to be brought in the proximity of the electricity mains without written approval from Ausgrid.
11. The planting of vegetation must consider Ausgrid's access and maintenance requirements are maintained.
12. All structures must comply with 'As Constructed' clearances specified in Ausgrid's 'NS220 - Overhead Design Manual'.

### **Consent**

Ausgrid consents to proposed development detailed in MGC Concept Plans providing all conditions detailed above are satisfied.

Yours sincerely



**Troy Tracey**

**Engineering Officer**

Customer Supply – Planning & Reliability

**Ausgrid**

☎ (02) 49101264

✉ ttracey@ausgrid.com.au

🖨 (02) 4951 9459

🌐 www.ausgrid.com.au

**Ausgrid Reference: 1900086444**

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