

# Bushfire Assessment Report

***Proposed:***  
**Subdivision**

***At:***  
**Lot 1 DP 1086006**  
**Abbotsford Road**  
**Picton**

*Reference Number:* 190771

*Prepared For:*  
**Rein Warry & Co**

**13<sup>th</sup> March 2019**



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The onus is on the applicant to cross reference this document with any conditions of consent issued by Council or any requirements supplied by the NSW Rural Fire Service following development approval. BCBHS can review and cross reference these documents however the onus is on the applicant to provide them to us and request this review – Building Code and Bushfire Hazard Solutions Pty. Ltd. is not in a position to track every DA through Council and we rely upon the applicant to undertake this role as project co-ordinator.

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## List of Abbreviations:

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APZ	Asset Protection Zone
AS3959	Australian Standard 3959 – 2009 as amended.
BAL	Bushfire Attack Level
BCA	Building Code of Australia
BPMs	Bushfire Protection Measures
BPLM	Bushfire Prone Land Map
Council	Wollondilly Council
DA	Development Application
EP&A Act	<i>Environmental Planning and Assessment Act - 1979</i>
ESD	Ecologically Sustainable Development
FRNSW	Fire and Rescue NSW
IPA	Inner Protection Area
NCC	National Construction Code
NP	National Park
NSP	Neighbourhood Safer Place
OPA	Outer Protection Area
PBP	<i>Planning for Bush Fire Protection – 2006</i>
ROW	Right of Way
RF Act	<i>Rural Fires Act - 1997</i>
RFS	NSW Rural Fire Service
SEPP	State Environmental Planning Policy
SFPP	Special Fire Protection Purpose
SWS	Static Water Supply

## 1.0 Introduction

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The development proposal relates to the subdivision of one (1) existing rural allotment located at 15 Fairleys Road, 110 Fairleys Road and 200 Abbotsford Road, Picton into three (3) allotments. It is noted that there is no construction proposed as part of this proposal.

The subject property is a large rural allotment bisected by Abbotsford Road north to south, borders Fairleys Road to the east and abuts private rural-residential allotments to the remaining aspects.

The vegetation identified as being the potential bushfire hazard to the available building footprints is located within the subject property to the north of proposed Lot 101, to the south and west of proposed Lot 102 and to the north and south of proposed Lot 103. The size of the proposed allotments is such that a building footprint can be easily located with compliant Asset Protection Zones and away from any of the riparian areas should they be reinstated in the future.

Wollondilly Council's Bushfire Prone Land Map identifies the subject property as containing designated Category 2 Vegetation and the buffer zones from Category 1 & 2 vegetation therefore *Planning for Bush Fire Protection - 2006* (PBP) must apply in this instance.

## 2.0 Purpose of Report

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The purpose of this Bushfire Assessment Report is to provide the owners, The Rural Fire Service and Council with an independent bushfire hazard determination together with appropriate recommendations for both new building construction and bushfire mitigation measures considered necessary having regard to construction within a designated 'bushfire prone' area.

The recommendations contained within this report may assist in forming the basis of any specific construction conditions and/or bushfire mitigation measures that Council and/or the NSW Rural Fire Service may elect to place within any consent conditions issued for the subject Development Application.

## 3.0 Scope of this Report

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The scope of this report is limited to providing a bushfire hazard assessment and recommendations for the subject property. Where reference has been made to the surrounding lands, this report does not purport to directly assess those lands; rather it may discuss bushfire impact and/or progression through those lands and possible bushfire impact to the subject property.

Where Council considers a bushfire risk is associated with surrounding private lands or lands owned by an authority, Council could seek to issue notice under Section 66 of the Rural Fires Act on any or all surrounding properties for the purposes of reducing and maintaining safe levels of vegetation and thus reducing the possibility of bushfire impact to the subject property and any adjoining properties.

## 4.0 Referenced Documents and Persons

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Comments provided are based on the requirements of the *Environmental Planning and Assessment Act 1979* (EP&A Act), the *Rural Fires Act 1997*, the *Rural Fires Regulation 2013*, the RFS document known as '*Planning for Bush Fire Protection 2006*' for the purposes of bushfire hazard determination and Australian Standard 3959 2009 titled 'Construction of buildings in bushfire-prone areas' as amended for building/structural provisions.

A company representative has made a site inspection of the subject property and the surrounding area. The subdivision plan prepared by Darryl Warry, Surveyors Reference 7042LIN2, Dated 22/09/2014 has been relied upon for this assessment.



## 5.0 Aerial view of the subject allotment

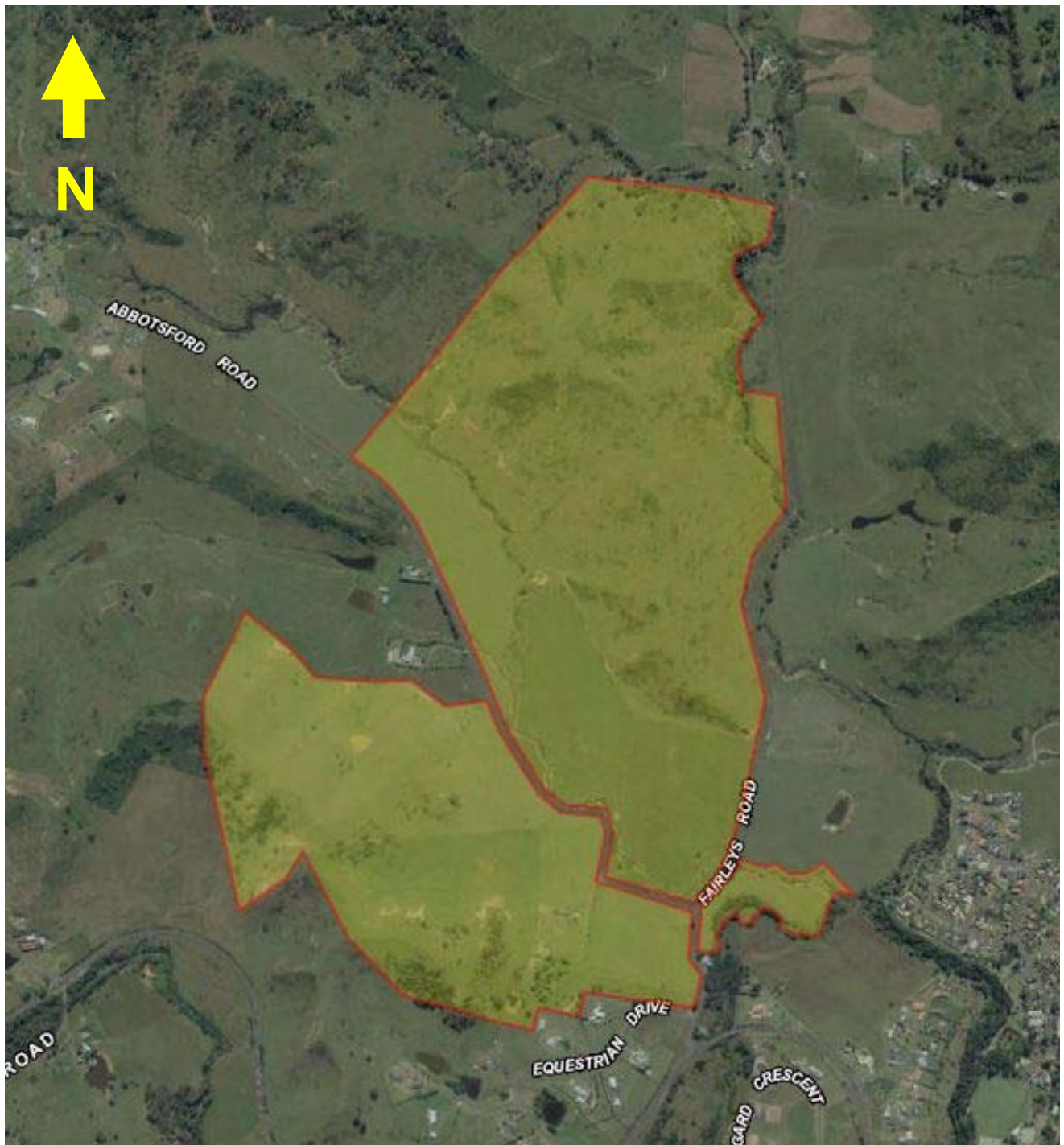
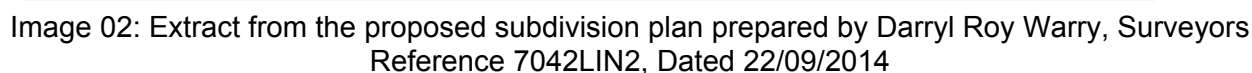


Image 01: Aerial view of the subject property (highlighted yellow) from SixMaps 2019



## 6.0 Bushfire Hazard Assessment

### 6.01 Preface

Properties considered to be affected by possible bushfire impact are determined from the local Bushfire Prone Land Map as prepared by Council and or the Rural Fire Service. All property development within affected areas is subject to the conditions detailed in the document '*Planning for Bush Fire Protection 2006*' (PBP). Set back distances for the purpose of creating Asset Protection Zones (APZ's) must be applied and any buildings must then conform to corresponding regulations detailed in Australian Standard 3959 'Construction of buildings in bushfire prone areas' 2009.

*Planning for Bush Fire Protection 2006*, (PBP) formally adopted on the 1<sup>st</sup> March 2007 and amended 3<sup>rd</sup> May 2010 (Appendix 3) provides for the protection of property and life (including fire-fighters and emergency service personnel) from bushfire impact.

The thrust of the document is to ensure that developers of new properties or sub-divisions include the constraints associated with the construction of buildings in bushfire prone areas within their proposed development sites. PBP is applicable to proposed development inside a determined Category 1 or 2 areas and also inside a buffer zone radius of 100m from a Category 1 bushfire area or 30m from a Category 2 bushfire area.

The subject development relates to the subdivision of one (1) existing rural allotment into three (3) allotments. This type of development is considered integrated under s100B of the *Rural Fires Act 1997*.

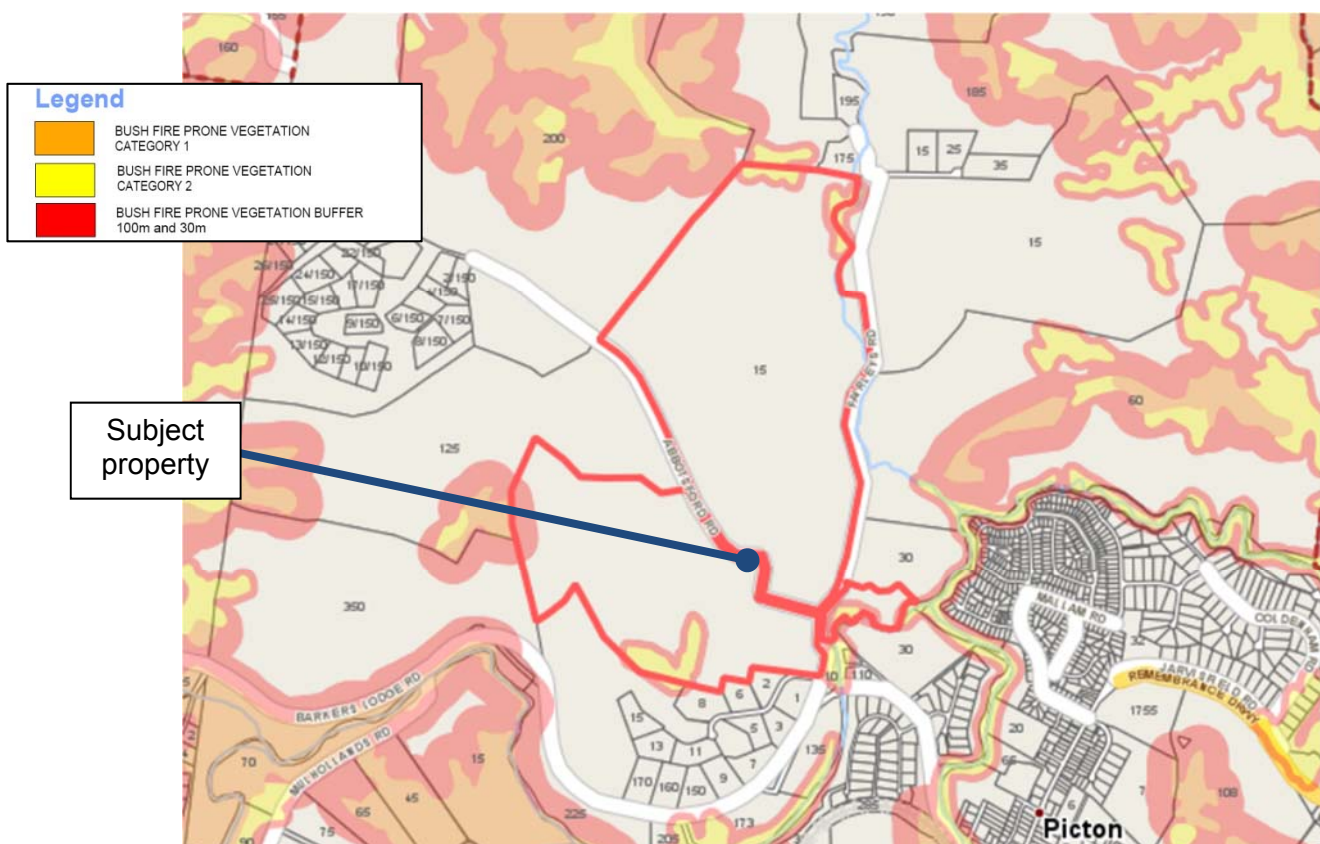


Image 02: Extract from Wollondilly Council's Bushfire Prone Land Map



## 6.02 Location

The subject property is known as 15 Fairleys Road, 110 Fairleys Road and 200 Abbotsford Road, Picton (Lot 1 DP 1086066) and is located within Wollondilly Councils Local Government Area. The subject property is a large rural allotment bisected by Abbotsford Road north to south, borders Fairleys Road to the east and abuts private rural-residential allotments to the remaining aspects.

The vegetation identified as being the potential bushfire hazard to the available building footprints is located within the subject property to the north of proposed Lot 101, to the south and west of proposed Lot 102 and to the north and south of proposed Lot 103.

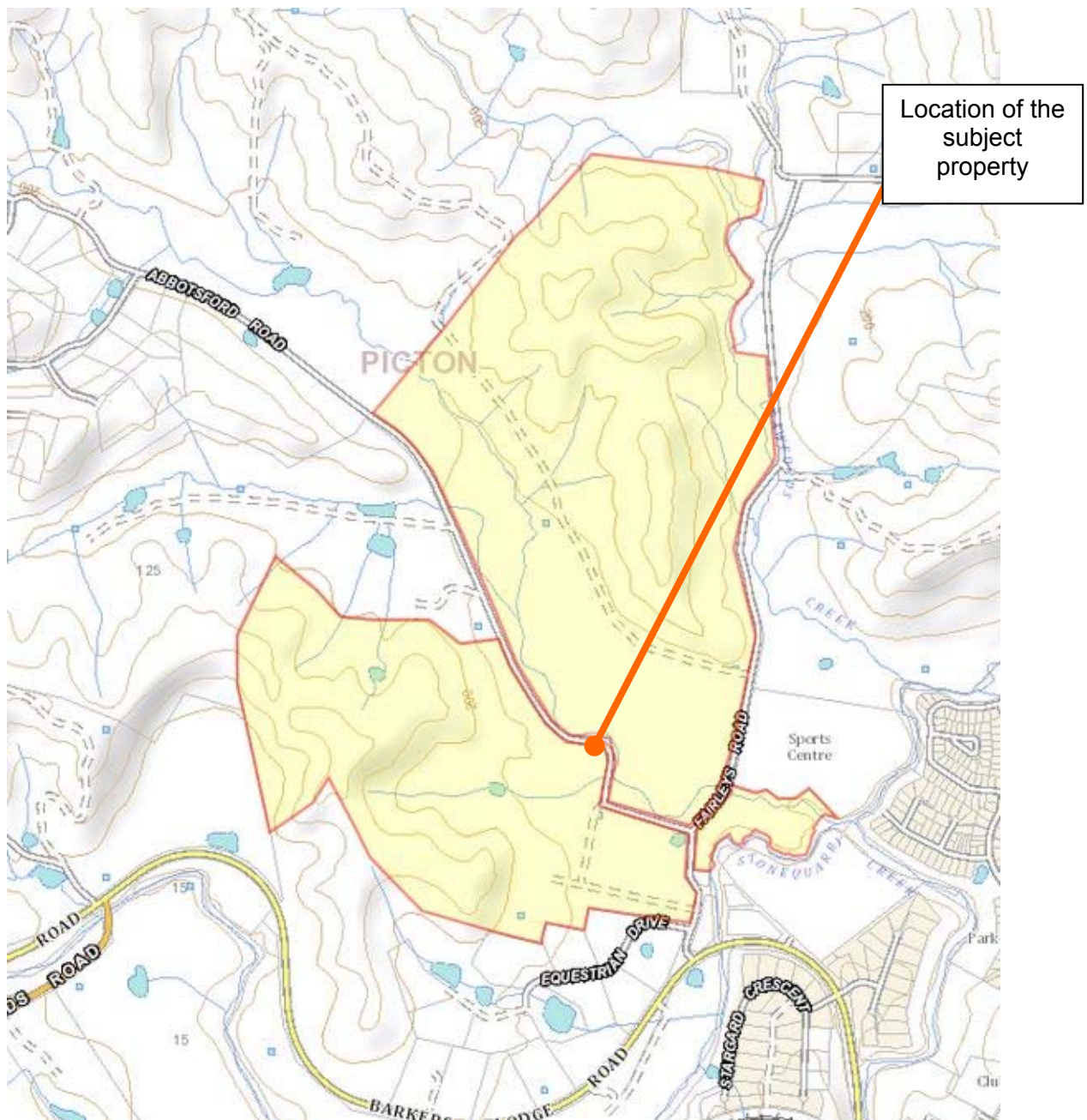


Image 03: Extract from Sixmaps

### 6.03 Vegetation

The vegetation identified as being the potential bushfire hazard to the available building footprints is located within the subject property to the north of proposed Lot 101, to the south and west of proposed Lot 102 and to the north and south of proposed Lot 103.

The vegetation posing a hazard within the proposed allotments was found to consist of remnant pockets of woodland and scrub and riparian areas.

For the purpose of assessment under PBP the vegetation posing a hazard within the subject property was determined to be Remnant and Riparian.



Scrub /  
Remnant

Photograph 01: View into the Remnant Scrub within the subject property

Riparian



Photograph 02: View of the Riparian vegetation along the boundary of proposed Lot 103



## 6.04 Slope and Topography

The slope that would most significantly affect fire behaviour must be assessed for at least 100 metres from within the hazards. The most significant bushfire impact to the available building footprints is expected to be a bushfire travelling across or up slope away from any future building footprints.

The slope that would **most significantly** influence bushfire impact was determined onsite using an inclinometer and verified from topographic imagery.

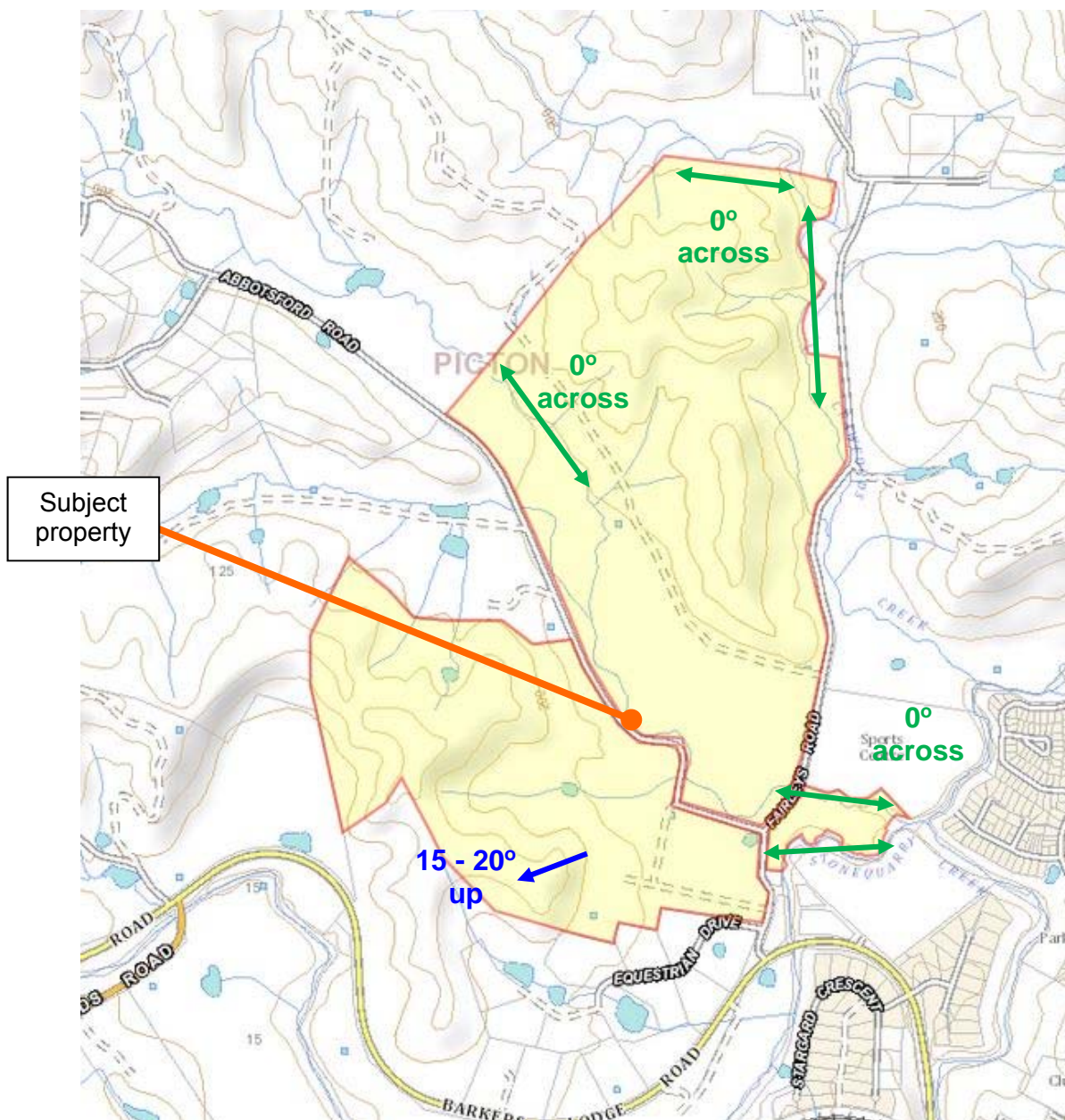


Image 04: Extract from Land and Property Management Authority Spatial Information Exchange SIXMaps 2019

## 6.05 Asset Protection Zones

The size of the proposed lots is such that a building footprint can be easily located with compliant Asset Protection Zones and away from any of the riparian areas should they be reinstated in the future.

The proposed new allotments can accommodate a building footprint achieving or exceeding the minimum required Asset Protection Zones under Appendix 2 of Planning for Bush Fire Protection 2006.

The available Asset Protection Zones will consist of maintained land wholly within the subject property.

All future Asset Protection Zones will be maintained as an Inner Protection Area as detailed in the NSW Rural Fire Service's document 'Standards for Asset Protection Zones'.



View across  
proposed Lot 102

Photograph 03: View of the maintained grounds of Lot 102

Maintained  
grounds



Photograph 04: View maintained grounds within proposed Lot 102



## 6.06 Fire Fighting Water Supply

Any future dwelling can be connected to the existing reticulated water mains in Abbotsford Road for its domestic needs. Hydrants are available along Abbotsford Road.

If the most distant external point of the future building footprints are located greater than 70 metres from a hydrant a 20,000 Static Water Supply will be required to be provided within each new allotment.

These supplies should be addressed and conditioned at the time of future development applications for the construction of the future dwellings.

## 6.07 Property Access

Each proposed allotment will be accessed via a new access drive from either Abbotsford Road or Fairley Road.

These new private access drives must comply with the requirements for Property Access as detailed in section 4.1.3(2) of Planning for Bush Fire Protection 2006.

## 7.0 Site & Bushfire Hazard Determination

### 7.01 Planning for Bush Fire Protection - 2006

'Planning for Bush Fire Protection – 2006' (PBP) is applicable to those lands determined as being within a 'bushfire prone area' in accordance with a local Bushfire Prone Land Map as provided by the Rural Fire Service and Council.

The most appropriate method of determining site bushfire hazard under the terms of PBP is to consider the site in a singular form.

*Bushfire prone areas are defined as those areas;*

- *within or within 100m of high or medium bushfire hazards; or*
- *within or within 30m of low bushfire hazards.*

### 7.02 Australian Standard AS 3959 – 2009 'Construction of buildings in bushfire –prone areas'

Australian Standard 3959 – 2009 'Construction of buildings in bushfire-prone areas' provides for six (6) levels of building construction these being BAL - Low, BAL - 12.5, BAL - 19, BAL - 29, BAL - 40 and BAL - FZ. The Australian Standard 3959 specifies construction standards for buildings within various Bushfire Attack Levels as determined by the *Planning for Bush Fire Protection – 2006* document. The NSW Rural Fire Service will not accept deemed to satisfy provisions for BAL Flame Zone and therefore have a NSW variation to the listed standard provisions of BAL FZ under AS3959 - 2009.

### 7.03 Correlation between bushfire impact and AS3959

Bushfire Attack Level	Maximum radiant heat impact (kW/m <sup>2</sup> )	Level of construction under AS3959-2009
Low		No special construction requirements
12.5	≤12.5	BAL - 12.5
19	12.6 to 19.0	BAL - 19
29	19.1 to 29.0	BAL - 29
40	29.1 to 40.0	BAL - 40
Flame Zone	>40.0	BAL FZ No deemed to satisfy provisions

## 7.04 Site Specific Bushfire Hazard Determination

All property development must be assessed on an individual basis as broad-brush approaches of documents such as PBP may not be applicable in every instance. The proposed development located at 15 Fairleys Road, 110 Fairleys Road and 200 Abbotsford Road, Picton (Lot 1 DP 1086066) was assessed against the requirements of '*Planning for Bush Fire Protection 2006*' noting the following:

- a) Access to the subject property and new allotments is available from Abbotsford Road, Fairleys Road and new access drives.
- b) The proposed new allotments can provide building footprints achieving or exceeding the minimum required Asset Protection Zones for Rural Residential Subdivision.
- c) Recommendations to maintain the Asset Protection Zones within the subject property will be included.

## 7.05 Viable Construction Method

The objectives of *Planning for Bush Fire Protection – 2006* are for the protection of life including fire fighters. Provided these objectives can be met the construction of buildings is feasible and both the Rural Fire Service and Council should be in a position to consider such applications.

No new dwellings are proposed as part of this application. An independent assessment will be required under s4.14 of the *Environmental Planning and Assessment Act 1997* at the time of an application for the construction of a dwelling.

## 8.0 Recommendations

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The following recommendations are provided as the minimum necessary for compliance with *Planning for Bush Fire Protection* 2006 and Australian Standard 3959 'Construction of buildings in bushfire-prone areas' 2009. Additional recommendations are provided to supplement these minimum requirements where considered necessary.

### General

1. That the proposed development complies with the subdivision plan prepared by Darryl Roy Warry, Surveyors Reference 7042LIN2, Dated 22/09/2014.

### Construction

N/A

### Asset Protection Zones

N/A

### Access

2. That the construction of any new access drive within the rural residential allotments complies with the requirements for Property Access as detailed in section 4.1.3 (2) of *Planning for Bush Fire Protection* 2006, in particular:
  - A minimum carriageway width of four metres.
  - A minimum vertical clearance of four metres to any overhanging obstructions, including tree branches.
  - Curves have a minimum inner radius of six metres and are minimal in number to allow for rapid access and egress.
  - The minimum distance between inner and outer curves is six metres.
  - The crossfall is not more than 10 degrees.
  - Maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads.
  - Internal roads for rural properties provide a loop road around any dwelling or incorporate a turning circle with a minimum 12 metre outer radius (or suitable turning provisions for a fire appliance).



## 9.0 Conclusion

Given that the property is deemed bushfire prone under Wollondilly Council's Bushfire Prone Land Map any development would need to meet the requirements of 'Planning for Bush Fire Protection 2006' and of the construction requirements of *Australian Standard 3959 'Construction of buildings in bushfire-prone areas'* 2009. The determination of any bushfire hazard must be made on a site-specific basis that includes an assessment of the local bushland area and its possible impact to the subject property.

The subject property is a large rural allotment bisected by Abbotsford Road north to south, borders Fairleys Road to the east and abuts private rural-residential allotments to the remaining aspects. The vegetation identified as being the potential bushfire hazard to the available building footprints is located within the subject property to the north of proposed Lot 101, to the south and west of proposed Lot 102 and to the north and south of proposed Lot 103.

The size of the proposed allotments is such that a building footprint can be easily located with compliant Asset Protection Zones and away from any of the riparian areas should they be reinstated in the future.

The proposed new allotments can accommodate a building footprint achieving or exceeding the minimum required Asset Protection Zones under Appendix 2 of Planning for Bush Fire Protection 2006.

No new dwellings are proposed as part of this application. An independent assessment will be required under s4.14 of the *Environmental Planning and Assessment Act* 1997 at the time of an application for the construction of a dwelling.

Access provisions have been recommended to comply with section 4.1.3 (2) of PBP 2006 and water supply is required to be addressed at the time that applications are made to construct new dwellings within the proposed allotments.

In accordance with the bushfire safety measures contained in this report, and consideration of the site specific bushfire risk assessment it is our opinion that when combined, they will provide a reasonable and satisfactory level of bushfire protection to the subject development and also satisfy both the Rural Fire Service's concerns and those of Council in this area.

We are therefore in support of the development application.

Should you have any enquiries regarding this project please contact me at our office.

Prepared by  
Building Code & Bushfire Hazard Solutions P/L



**Duncan Armour**

Reviewed and endorsed by  
Building Code & Bushfire Hazard Solutions P/L



**Stuart McMonnies**

G. D. Design in Bushfire Prone Areas.  
Certificate IV Fire Technology  
Fire Protection Association of Australia BPAD – L3 Accredited Practitioner  
Accreditation number – BPAD 9400



## 10.0 Annexure 01

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### List of Referenced Documents

- a) *Environmental Planning and Assessment Act 1979*
- b) *Rural Fires Act 1997* as amended
- c) '*Planning for Bush Fire Protection*' 2006 - NSW Rural Fire Services & Planning NSW
- d) 'Construction of buildings in bushfire-prone areas' - AS 3959 – 2009 (as - amended) – Standards Australia
- d) 'Wollondilly Council's Bushfire Prone Land Map'
- e) The subdivision plan prepared by Darryl Roy Warry, Surveyors Reference 7042LIN2, Dated 22/09/2014
- h) Acknowledgements to:  
NSW Department of Lands – SIXMaps  
Street-directory.com.au

### Attachments

Attachment 01: N/A