



BUSHFIRE ATTACK LEVEL (BAL) ASSESSMENT

Lot 211 DP 752021 No.1-13 Vane Street,
CRANEBROOK NSW 2749

Report prepared for: - Mr Anthony Vella

Report Documentation Control

<i>Title</i>	Lot 211 DP 752021 No.1-13 Vane Street, CRANEBROOK NSW 2749
<i>Date</i>	Date of Issue 24 May 2017
<i>Date</i>	Date of Site Inspection 12 April 2017
<i>Author(s)</i>	Bushfire Management Consultants
<i>The Client</i>	Mr Anthony Vella
<i>Expiry</i>	12 April 2018 (The information in this report is valid for 12 months from the date of site inspection.)
<i>Job No.</i>	2017345
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Date: - 24 May 2017

Development Application Number: - Unknown

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OUR REFERENCE	2017345
DATE OF THIS REPORT	24 May 2017
APPLICATION TYPE	<input checked="" type="checkbox"/> Development Application S100B RFA
SUBJECT SITE	Lot 211 DP 752021 No.1-13 Vane Street, CRANEBROOK NSW 2749
PROPOSED DEVELOPMENT	One into Three Lot Subdivision
PLAN REFERENCE	<i>Proposed Subdivision Plan, prepared by Matthew Freeburn Land, Engineering and Mining Surveyors, Ref 35823, Revision 01, Sheet 1 of 1, Drawn by: DC, Dated 03/03/2017 (Attached)</i>

1.0 PROJECT BRIEF

Bushfire Management Consultants have been engaged by Mr Anthony Vella to assess the potential threat to the proposed development in the event of a bushfire and prepare a Bushfire Attack Level Assessment to determine the level of Bushfire Attack to the proposed development and compliance with Planning for Bushfire Protection 2006 (PBP).

Maps prepared by Penrith City Council in accordance with Section 146 of the Rural Fires Act 1979 (RF Act) indicate that the subject property is bushfire prone land. The aim of this report is to determine compliance with Planning for Bushfire Protection 2006 (PBP) and AS3959 – 2009 *Construction of Buildings in Bushfire Prone Areas* and to determine if any further requirements are needed for the proposal with regard to bushfire protection. This assessment included a site assessment to determine the actual site characteristics.

An assessment has been conducted in accordance with the methodology set out in AS3959-2009 (Amendment 3).

The proposal is to seek approval for a proposed one into three lot subdivision.

The following information has been used to assess the potential bushfire threat to the property:-

- (a) Proposed Subdivision Plan, prepared by Matthew Freeburn Land, Engineering and Mining Surveyors, Ref 35823, Revision 01, Sheet 1 of 1, Drawn by: DC, Dated 03/03/2017
- (b) Inspections of the site and surrounding development
- (c) Advice from City Scape Planning and Projects
- (d) Advice From NSW Rural Fire Service



2.0 EXECUTIVE SUMMARY

This report provides an assessment of the subject property and proposed development as required by Section 100B of the Rural Fires Act and The NSW Rural Fire Service Guide; *Planning for Bushfire Protection (2006) – A Guide for Councils, Planners, Fire Authorities and Developers*, to determine compliance with Planning for Bushfire Protection 2006. Subsequently the subject site has been identified as Bushfire Prone Land and has been identified on the bushfire prone land maps adopted by Penrith City Council. (Refer Attachment B)

The subject site is known as Lot 211 DP 752021 No.1-13 Vane Street, Cranebrook NSW and is currently a single rural allotment with a single dwelling and sheds. The existing allotment is a large rural lot with an approximate area of 6.25ha. The site has access off Vane Street which is an existing public road that provides vehicular access to the site. Upgrades of the cul-de-sac head are proposed as part of this application. In addition it is proposed to demolish the existing dwelling that exists on site as part of this application and as such building upgrades are not proposed.

NSW Rural Fire Service (RFS) provided written advice through a pre lodgement advice service (Refer Attachment C) and as such this report has been developed in consideration of the RFS advice.

The assessment determined that the proposed development can comply with the requirements within *Planning for Bushfire Protection (2006) – A Guide for Councils, Planners, Fire Authorities and Developers* with regard to asset protection zone requirements in Appendix 2 Table A2.4 for the proposed development type and can comply with same for services, access etc.

Asset Protection zones are provided to achieve a building envelope of minimum BAL 29 whilst a cul-de-sac head upgrade, is proposed as a 'better bushfire outcome' given the evacuation constraints within Vane Street.

3.0 PROPOSED DEVELOPMENT

The applicant proposes a one into three lot subdivision on Lot 211 DP 752021 No.1-13 Vane Street, Cranebrook. The area of the existing site is approximately 6.25ha and is currently rural land containing an existing dwelling, sheds, dam and horse paddocks. It is proposed to subdivide the existing lot into 3 lots being proposed Lots 1, 2 and 3. Each lot is proposed at 2.084 hectares (ha)

The application proposes demolition of the existing dwelling on site, together with filling and removal of the existing dam that straddles the proposed common boundary between lots 1 and 2.

In addition it is proposed to construct a new cul-de-sac turning head at the dead end in Vane Street in front of proposed Lot 2.

A copy of the proposed subdivision plan is at Attachment 'A' of this report.



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Figure 1 – Subject Site – Existing Dwelling to be demolished



Figure 2 – Subject Site – Proposed Lots



4.0 SITE ASSESSMENT AND CHARACTERISTICS

4.1 Site Description

The site is located in the Local Government Area of Penrith in the suburb of Cranebrook with a street access to Vane Street. Vane Street is a local road providing a bitumen sealed public road access to the property and surrounding developments. The site is currently rural land with a single dwelling and managed trees and vegetation. The managed nature of the site is predominantly due to the grazing by livestock on the property.

The existing single allotment is generally a rectangular shaped allotment with a length of approximately 382m and a width of approximately 163m and a site area of approximately 6.25ha. An Aerial photo of the site is shown in Figure 2.

4.2 Surrounding Development

4.2.1 North West Rear

The land in this direction forms part of this development application as proposed lots 1,2 and 3 are all 382m long and as such can be managed as part of this development to achieve the appropriate APZ's as defined in Planning for Bushfire Protection 2006.

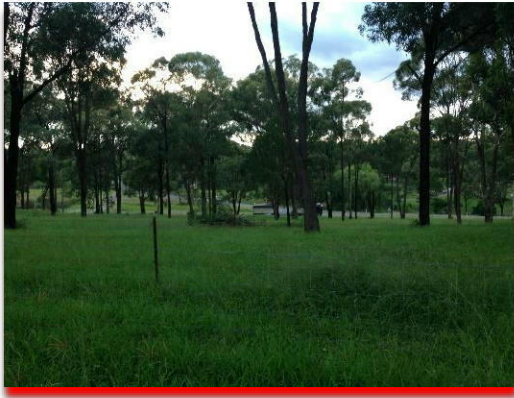


Figure 3 – North West



4.2.2 South East

To the south east is the existing Vane Street Road Reserve. A road carriageway is constructed within the road reserve across the frontage of Lot 3 to proposed Lot 2. The remainder of Vane Street is unformed. (Refer to Section 7 for Access Requirements). Further to the south east is existing 'Woodland' type vegetation.



South East - Woodland



Vane Street

Figure 4 – South East

4.2.3 North East

To the north east is an existing Council unformed road reserve. The vegetation within this unformed road is addressed in Section 5.3 of this report. Further to the north east are existing rural properties (Lot 1 DP 224800). This land is a mixture of managed areas and vegetation best described as 'Woodland' type vegetation.



Figure 5 – North East



4.2.4 South West

To the south west is an existing Council unformed road reserve. The vegetation within this unformed road is addressed in Section 5.3 of this report. Further to the south west are existing rural properties and the Sydney Water, Elevated Castlereagh Reservoir. This land is considered 'Managed Lands'

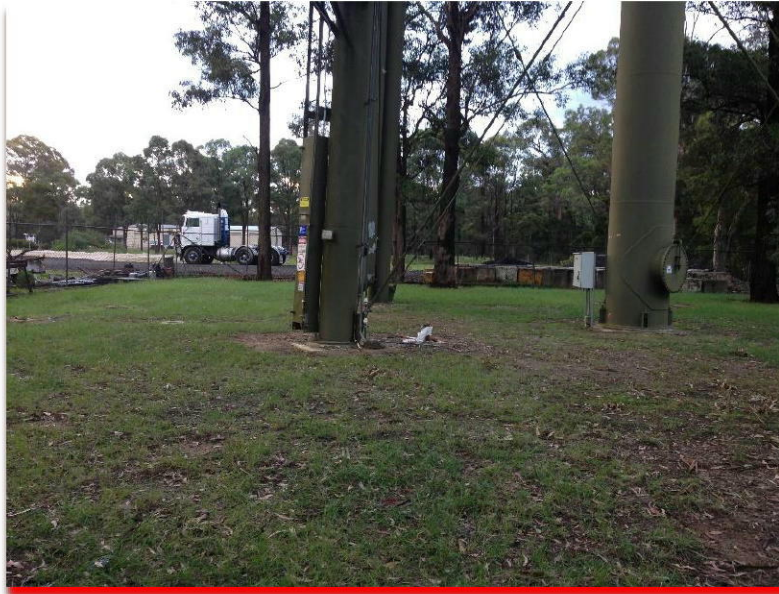


Figure 6 – South West

5.0 DETERMINING APZ REQUIREMENTS

5.1 Methodology

Planning for Bushfire Protection Appendix 2 Table A2.4 sets the minimum specifications for Asset Protection Zones (APZ's) for Residential and Rural Residential Subdivision to determine the minimum APZ requirements requires determination of the following:-

1. The relevant Fire Danger Index (FDI)
2. The classified vegetation types
3. The effective slope under the classified vegetation
4. The minimum APZ specification from the appropriate table

In addition Planning for Bushfire Protection S4.1.3 requires that radiant heat levels at any point on a proposed building will not exceed 29kw/m^2 (BAL 29). AS3959-2009 sets the methodology for assessment and determination of the applicable Bushfire Attack Level (BAL) for development. The method required the determination of the following:-



1. The relevant Fire Danger Index (FDI)
2. The classified vegetation types
3. The distance of the site from the classified vegetation
4. The effective slope under the classified vegetation
5. The BAL level from the appropriate table

The following addresses the method for determining the minimum APZ and BAL for the subject site.

5.2 FDI

FDI is determined by Table 2.1 AS3959-2009. In this case the subject site is within NSW and the Greater Sydney Region.

NSW Greater Sydney FDI 100

5.3 Vegetation Type

The subject site is adjacent to unformed road reserves to the north east, south west and part of Vane Street to the south east. These sections of road reserve are generally unmanaged and contain vegetation. The road reserves in question are generally 20m wide. The vegetation within the road reserves is inconsistent with the wider vegetation community which is best described as 'Woodland' whilst the vegetation within the unformed road reserves is best described as 'Forest'. Given the road reserves are generally 20m wide we consider that there will be little change in bushfire behaviour between the adjacent 'Woodland' and vegetated unformed road reserves. In fact the road reserves may assist as a wind break and ember barrier in a bushfire event.

As such it is considered that the predominant vegetation surrounding the site and the vegetation most likely to affect bushfire behaviour is 'Woodland'.

The Classification of vegetation in Table 2.3 AS3959 is:-

TABLE 1, CLASSIFICATION OF VEGETATION

Vegetation Type
Woodland

5.4 Slope

The slope of the land within 100m of a proposed allotments together with other factors reflects the intensity and rate of spread of an approaching bushfire. Fires spread quicker when burning upslope than they generally do when burning downslope. The slope within 100m of proposed Lots 1 to 3 have been assessed accordingly.



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TABLE 2, SLOPE IDENTIFICATION

Direction	Slope	Degrees (°)
North West	Downslope	0-5°
South East	Downslope	10-15°
North East	Downslope	0-5°
South West	Upslope	All Upslopes use 0°

5.5 Planning for Bushfire Protection Appendix 2 Table A2.4

Planning for Bushfire Protection Appendix 2 Table A2.4 requires a minimum specifications for asset protection zones.

TABLE 3, PBP APZ REQUIREMENTS

	Proposed Lot 1		Proposed Lot 2		Proposed Lot 3	
	Required	Proposed	Required	Proposed	Required	Proposed
North West	15m	< 100m ✓	15m	< 100m ✓	15m	< 100m ✓
South East	25m	Min 33m ✓	25m	Min 33m ✓	25m	Min 33m ✓
North East	15m	21m ✓	15m	54m ✓	15m	108m ✓
South West	10m	108m ✓	10m	54m ✓	10m	16m ✓

The setbacks for a future building on each allotment can comply with the asset protection zones as required under Planning for Bushfire Protection Appendix 2 Table A2.4. Given the width of the proposed allotments there is scope to site a dwelling on the site to achieve the required APZ setbacks and as such building envelopes have not been proposed. The report however will recommend the following building setbacks to boundaries.

TABLE 4, MINIMUM BUILDING SETBACKS

	Lot 1	Lot 2	Lot 3
North West	DCP	DCP	DCP
South East	33m	33m	33m
North East	21m	DCP	DCP
South West	DCP	DCP	16m

** The setbacks in this table are minimum setbacks to achieve the appropriate APZ requirements from PBP and AS3959 for BAL 29. Council may require greater setbacks to achieve Development Control Plan (DCP) requirements.

5.6 AS3959-2009 BAL 29 Assessment

A separate application will be required to be lodged for approval for each dwelling on each proposed allotment. At that time the BAL can be assessed independently. A positive covenant is proposed on each allotment that the asset protection zone on each lot will be maintained as such and that each lot has a benefit to maintain the APZ on each lot within the proposed subdivision.



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TABLE 5, PROPOSED LOT 1 TABLE OF COMPLIANCE

Proposed Lot 1	North West	South East	North East	South West
Vegetation Structure	Managed Land (Subject Site)	Woodland	Woodland	Woodland
Vegetation Width	>100m	>100m	>100m	<100m
Slope	Downslope 0-5 ⁰	Downslope 10-15 ⁰	Downslope 0-5 ⁰	Upslope
Asset Protection Zone	Manage Property as IPA	Subject Site	Subject Site	Lots 1 and 2
Distance to vegetation	>100m	33m	21m	>100m
Bushfire Attack Level	BAL LOW	BAL 29	BAL 29	BAL LOW

TABLE 6, PROPOSED LOT 2, TABLE OF COMPLIANCE

Proposed Lot 2	North West	South East	North East	South West
Vegetation Structure	Managed Land (Subject Site)	Woodland	Woodland	Woodland
Vegetation Width	>100m	>100m	>100m	<100m
Slope	Downslope 0-5 ⁰	Downslope 10-15 ⁰	Downslope 0-5 ⁰	Upslope
Asset Protection Zone	Manage Property as IPA	Subject Site	Lot 1	Lot 3
Distance to vegetation	>100m	33m	54m	54m
Bushfire Attack Level	BAL LOW	BAL 29	BAL 12.5	BAL 12.5

TABLE 7, PROPOSED LOT 3, TABLE OF COMPLIANCE

Proposed Lot 3	North West	South East	North East	South West
Vegetation Structure	Managed Land (Subject Site)	Woodland	Woodland	Woodland
Vegetation Width	>100m	>100m	>100m	<100m
Slope	Downslope 0-5 ⁰	Downslope 10-15 ⁰	Downslope 0-5 ⁰	Upslope
Asset Protection Zone	Manage Property as IPA	Subject Site	Lots 1 and 2	Subject Site
Distance to vegetation	>100m	33m	>100m	16m
Bushfire Attack Level	BAL LOW	BAL 29	BAL LOW	BAL 29

**As such each proposed lot can achieve minimum BAL 29



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TABLE 8 PBP OBJECTIVES FOR ASSET PROTECTION ZONES

OBJECTIVE	PBP COMPLIANCE
Radiant heat levels at any point on the proposed building will not exceed 29kw/m ² .	<input checked="" type="checkbox"/> Complies
APZ's are managed and maintained to prevent the spread of fire towards the building	<input checked="" type="checkbox"/> Complies
APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is negated	<input checked="" type="checkbox"/> Complies

6.0 WATER SUPPLY AND FACILITIES

6.1 Water Supply

Reticulated water supply is available to the subject site and surrounding allotments. Future dwellings will be required to provide a water supply for fire fighting purposes. A 65mm storz fitting and ball or gate valve installed in the water tank. Gate and ball valve shall be made of metal.

- Water supply is to comply with Section 4.1.3 of Planning for Bushfire Protection 2006.
- Where the proposed building envelope is greater than 70m from the nearest hydrant a minimum driveway width of four metres is required.

A restriction as to user is proposed over each allotment to require a minimum 20,000 litre water tank for fire fighting purposes.

6.2 Gas Services

If gas is provided to the proposed lots the following shall be adhered to for gas connections:-

- All external gas lines shall be made of metal.
- Reticulated and bottled gas shall be installed and maintained in accordance with AS 1596 – 2008.
- Gas Services are to comply with Section 4.1.3 of Planning for Bushfire Protection 2006.

6.3 Electrical Services

Origin Energy provides electrical services to the subject lot and as such the service provider has systems in place in the event of a bushfire. In addition electricity supply is to comply with Section 4.1.3 of Planning for Bushfire Protection 2006. New lines to the building envelopes and future buildings will be provided underground.



7.0 ACCESS

7.1 Public Road

Access to the site is via Vane Street. Vane Street is a sealed road with a varying width of approximately 6.0m to 3.5m which allows free access for fire fighting vehicles. Currently Vane Street terminates at a small cul-de-sac at its north eastern end. To aid in fire fighting activities it is proposed to upgrade the existing cul-de-sac to a Planning for Bushfire Protection compliant cul-de-sac to achieve a better bushfire fighting outcome than the existing configuration.

It is recognised that the existing road pavement in Vane Street whilst less than 6.5m in width, provides access commensurate with the bushfire risk. The first 150m of Vane Street from Church Lane is managed land on both sides of the street, whilst the remaining 80m to the north east will be managed land forming this proposed subdivision on the north west side of Vane Street. As such the risk to access and egress is from the south east being 'Woodland' for 80m. The Woodland in this area is approximately 130m in width which creates a lesser bushfire risk.

As such this application does not propose road widening as part of this application for fire fighting vehicle access or egress.

TABLE 9, PBP OBJECTIVES FOR PUBLIC ROAD

OBJECTIVE	PBP COMPLIANCE
Fire fighters are provided with safe all weather access to structures (thus allowing more efficient use of firefighting resources)	<input checked="" type="checkbox"/> Complies
Public road widths and design allow safe access for firefighters while residents are evacuating an area	<input checked="" type="checkbox"/> Existing
The capacity of road surfaces and bridges is sufficient to carry fully loaded firefighting vehicles	<input checked="" type="checkbox"/> Existing
Road and clearly sign posted (with easily distinguishable names) and buildings/properties that are clearly numbered	<input checked="" type="checkbox"/> Existing
There is clear access to reticulated water supply	<input checked="" type="checkbox"/> Existing
Parking does not obstruct the minimum paved width	<input checked="" type="checkbox"/> Existing

7.2 Property Access

Access to proposed Lots 2 and 3 will be directly from Vane Street. Access to proposed Lot 1 will be via a right of carriageway from Vane Street across Lot 2. The proposed access shall comply with section 4.1.3 (2) – Property Access with a minimum carriageway width of 4m. A loop road or turning circle shall be provided at the end of the access.

An alternative access to the proposed subdivision is not required under section 4.1.3 (2) for dwellings provided they are within 200m of a public through road. In this case, each allotment is within 200m of a public road (being Vane Street) however it is recognised that Vane Street is not a 'through road'. It is considered that upgrading the existing Cul-de-sac head within Vane Street to a PBP compliant Cul-de-sac-head, together with providing a loop road or turning circle within Lot 1, together with the risk



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to evacuation addressed in Section 7.1 of this report does not warrant in this case the provision of an alternate access.

TABLE 10, PBP OBJECTIVES FOR PROPERTY ACCESS

OBJECTIVE	PBP COMPLIANCE
Access to properties is provided in recognition of the risk to fire fighters and /or evacuating occupants	<input checked="" type="checkbox"/> Addressed
The capacity of road structures and bridges is sufficient to carry fully loaded fire fighting vehicles	<input checked="" type="checkbox"/> Existing
All weather access is provided	<input checked="" type="checkbox"/> Complies
Road widths and design enable safe access for vehicles	<input checked="" type="checkbox"/> Complies

7.3 Fire Trails

Fire Trails are not proposed as part of this development.

TABLE 9, PBP OBJECTIVES FOR FIRE TRAILS

OBJECTIVE	PBP COMPLIANCE
The width and design of the fire trails enables safe and ready access for firefighting vehicles	<input checked="" type="checkbox"/> N/A
Fire trails are trafficable under all weather conditions. Where the fire trail adjoins a public road, access shall be controlled to prevent use by non-authorised persons	<input checked="" type="checkbox"/> N/A
Fire trails designed to prevent weed infestation, soil erosion and other land degradation	<input checked="" type="checkbox"/> N/A



8.0 PBP FOR SUBDIVISION

Planning for Bushfire Protection S 4.1.2 sets specific objectives for subdivisions both residential and rural.

TABLE 10, PBP OBJECTIVES FOR SUBDIVISION/DUAL OCCUPANCY

OBJECTIVE	PBP COMPLIANCE
Minimise perimeters of the subdivision exposed to the bushfire hazard.	<input checked="" type="checkbox"/> Existing
Minimise bushland corridors that permit the passage of a bushfire.	<input checked="" type="checkbox"/> Existing
Provide for the siting of future dwellings away from ridge-tops and steep slopes	<input checked="" type="checkbox"/> Complies
Ensure that separation distances (APZ) between the bushfire hazard and the future dwellings comply with the deemed-to-satisfy requirements of the BCA	<input checked="" type="checkbox"/> Complies
Provide and locate, open space and public recreation areas as accessible public refuge areas or buffers	<input checked="" type="checkbox"/> Existing
Ensure the ongoing maintenance of asset protection zones	<input checked="" type="checkbox"/> Complies
Provide clear and ready access from all properties to the public road system for residents and emergency services	<input checked="" type="checkbox"/> Complies
Ensure the provision of adequate supply of water and other services to facilitate effective fire fighting.	<input checked="" type="checkbox"/> Complies

8.1 RFS Pre DA Requirements

NSW Rural Fire Service provided advice in the form of a Pre-DA Advice Summary in an email dated 12 May 2017 (refer attachment C). The following advice was sought from RFS and their response is in attachment C.

1. The subject site is at the end of existing Vane Street which is a 235m long cul-de-sac. PBP requires cul-de-sacs not to be longer than 200m and to be avoided. Will RFS endorse the proposed subdivision without an alternate access point given it is at the end of an existing cul-de-sac greater than 200m long? It should be noted that the north west side of Vane Street is predominantly 'Managed Land'.
2. In our opinion the site is not an 'isolated rural development'. Can you advise if RFS concur? As such we can prepare our Bushfire Threat Assessment accordingly.
3. It is proposed to upgrade the existing cul-de-sac head to a PBP compliant cul-de-sac as part of this application. The existing road width varies between 6m and 3.5m in width. The proposed new cul-de-sac head and wider sections of existing pavement allow two vehicles to pass



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essentially as a passing bay scenario. Will RFS require road widening for the full length of Vane Street to a minimum 6.0m or can the existing road remain with the provision of a new PBP compliant cul-de-sac head? In our opinion the existing road provides suitable access provided a new cul-de-sac head is constructed.

4. Will alternate access point be required? Given the level of threat on Vane Street (Managed Land and Woodland Vegetation) it is our opinion that access can be managed on the existing Vane Street alignment without an alternate access point.
5. The subject site is bounded by an existing Council unformed road reserve to the sides of the site (south west and north east). The road reserves are 20m wide with unmanaged vegetation. The vegetation within the road reserves are best described as 'Forest' type vegetation, however all other vegetation adjoining the road reserves and subject site is 'Woodland'. We suggest that 'Woodland' vegetation be adopted for APZ distances given the predominant vegetation is 'Woodland'. To ensure we satisfy RFS in our report can you concur?
6. Any other RFS comments?

The RFS advised in part that *"No objection is held in principal to the proposed approach"*. As such this report seeks to address and clarify the RFS advice summary.

9.0 RECOMMENDATION

The assessment recommends that the application for a one into three lot subdivision be approved and:-

- The proposed access road within the right of carriageway to access proposed Lot 1 shall comply with S 4.1.3 (2) of Planning for Bushfire Protection 2006 and be a minimum 4.0m wide bitumen sealed road. Cross fall shall not exceed 3 degrees. The access road shall incorporate a minimum 12m outer radius turning circle and clearly signposted as a dead end road. Maximum grade of sealed roads do not exceed 15 degrees. A minimum vertical clearance of 4.0m shall be achieved.
- The existing cul-de-sac head within Vane Street shall be upgraded to comply with S 4.1.3 (1) of Planning for Bushfire Protection 2006
- Water supply is to comply with Section 4.1.3 of Planning for Bushfire Protection 2006. Where a proposed building is greater than 70m from the nearest hydrant a minimum driveway width of four metres is required.
- Gas Services if provided are to comply with Section 4.1.3 of Planning for Bushfire Protection 2006.
- Electrical Services are to comply with Section 4.1.3 of Planning for Bushfire Protection 2006. New lines to the buildings and building envelopes will be provided underground.
- All above ground water supply pipes including taps are to be metal



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- Water, electricity and gas are to comply with Section 4.1.3 of Planning for Bushfire Protection 2006. New lines to the building will be provided underground.
- Proposed Lots 1, 2 and 3 inclusive shall be managed in perpetuity as an Inner Protection Area (IPA) as outlined within section 4.1.3 and appendix 5 of 'Planning for Bushfire Protection 2006' and the NSW Rural Fire Service's document 'Standards for asset protection zones within their respective Asset Protection Zones.

The Inner Protection Area (IPA) shall comprise the following:

- Minimal fine fuel at ground level;
 - Vegetation that does not provide a continuous path to the building for the transfer of fire;
 - Shrubs and trees that do not form a continuous canopy;
 - Vegetation that is cleared into clumps rather than continuous rows;
 - Species that retain dead material or deposit excessive quantities of ground fuel are to be avoided;
 - Shrubs and trees are pruned and removed so they do not touch or overhang the building (minimum 2.0m);
 - Vegetation is located far enough away from the building so that the plants will not ignite the building by direct flame contact or radiant heat emission.
- Proposed buildings within the lots shall have the following minimum setbacks

	Lot 1	Lot 2	Lot 3
North West	DCP	DCP	DCP
South East	33m	33m	33m
North East	21m	DCP	DCP
South West	DCP	DCP	16m

- A restriction as to user or positive covenant be provided on each allotment:-
 - a) To allow unlimited access to all other lots as part of this development to maintain the Asset Protection Zones in accordance with the standards applicable at the time.
 - b) Any application for development of Lots 1-3 inclusive shall include a minimum 20,000 litre non-combustible dedicated fire fighting water supply.
- The tank shall be non-combustible or shielded from the bushfire hazard. In accordance with the RFS fact sheet 3/08 (version 3) dated February 2012 the BASIX tank may be used for the purposes of circulating water to the development and is not a "dedicated" water supply
- A 65mm storz fitting and ball or gate valve installed in the BASIX tank. Gate and ball valve shall be made of metal.
- Above ground tanks are to be manufactured of concrete or metal.
- All above ground water supply pipes including taps are to be metal



10.0 CONCLUSION

This assessment determined that the proposal for a one into three lot subdivision can comply with the requirements of *Planning for Bushfire Protection (2006) – A Guide for Councils, Planners, Fire Authorities and Developers*.

Planning for Bushfire Protection

“no development in a bush fire prone area can be guaranteed to be entirely safe from bush fires

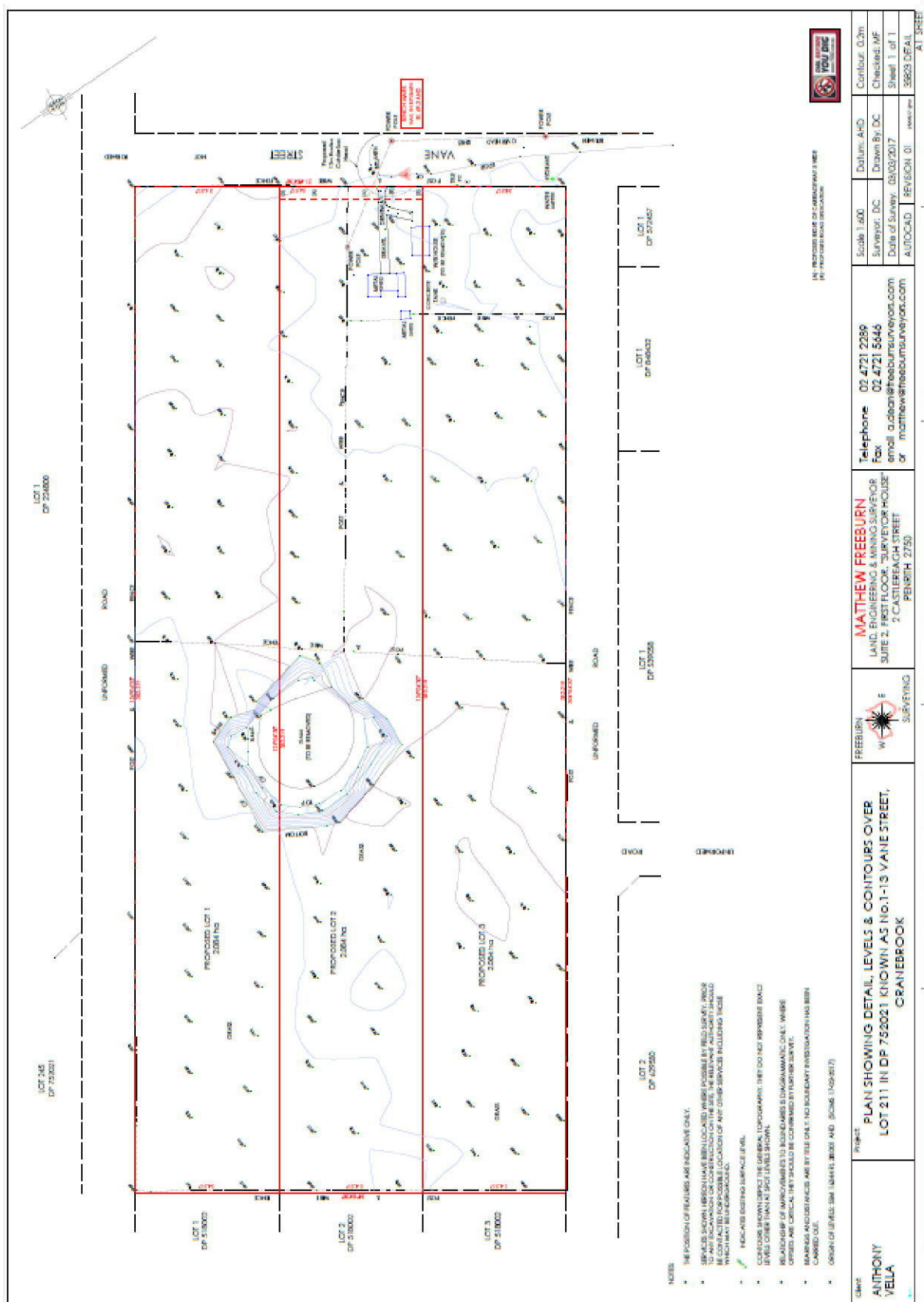
Australian Standard A.S 3959

“it should be borne in mind that the measures contained in this Standard cannot guarantee that a building will survive a bushfire event on every occasion. This is substantially due to the degree of vegetation management, the unpredictable nature and behaviour of fire, and extreme weather conditions”

REFERENCES

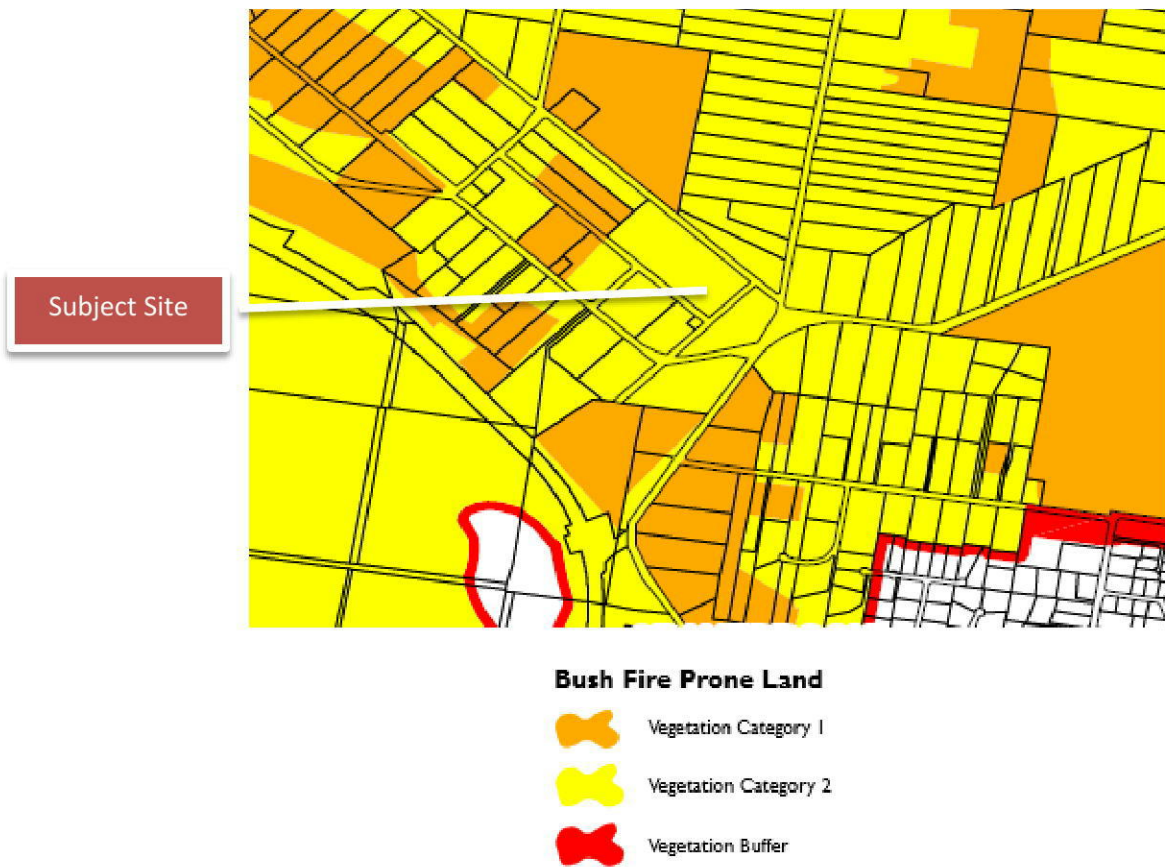
1. *Australian Standard AS 3959-2009 (Incorporating Amendment Nos 1,2 and 3)*
2. *Planning for Bushfire Protection (2006)*
3. *Penrith City Council Website*
4. *Ocean Shores to Desert Dunes – David Keith*
5. *Google Maps*
6. *RFS Website*
7. *NSW Environment and Heritage website*

Attachment A *Proposed Plans*







Attachment B *Bushfire Prone Land Map Penrith City Council*





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Attachment C - RFS Pre DA Advice

**NSW RURAL FIRE SERVICE**

PRE-DA ADVICE SUMMARY

Applicant:	Bushfire Management Consultants PO Box 4401 Penrith Plaza NSW 2750 Mobile number: 0411 067681
Subject:	Proposed 1 into 3 lot – Residential subdivision 1-13 Vane Street, Cranebrook NSW 2749

Details of the proposal:

☒ Residential subdivision.

Bush fire protection issues discussed:

☒ Access

Documentation / plans referenced:

➤ Proposed subdivision plan - Matthew Freeburn Surveyors, Ref: 35823 & dated 03/03/2017.

Advice provided:

➤ No objection is held in principle to the proposed approach.

➤ A performance based solution shall demonstrate compliance of the existing public access road with the performance criteria of section 4.1.3(1) of *Planning for Bush Fire Protection 2006* (PBP 2006) commensurate with the bush fire risk, to ensure safe access to fire fighters and evacuating residents in a bush fire emergency. In this regard, the proposed upgrade of the existing cul-de-sac to comply with PBP 2006 is considered to provide a better bush fire outcome.

➤ Similarly, the performance based solution shall demonstrate that the proposal satisfies the performance criteria applicable to property access under section 4.1.3(2) of PBP 2006 excluding the provision of an alternate access.

➤ Any deviation proposed for the classification of vegetation shall be supported by adequate information for consideration in the assessment of bush fire risk.

➤ The Pre DA service is not intended to provide or confirm a BAL compliance with PBP 2006 for a property prior to lodgement and neither is it a check compliance with a development proposal. The service is available for development proposals in high risk areas to obtain advice on proposals before lodging it with the consent authority, however the subject site is not considered to be exposed to high 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;

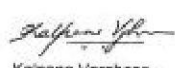
➤ Amending one aspect of the proposal could result in changes which would create a different set of impacts from the original plans and therefore require further assessment and advice; and,

➤ The Pre-DA advice does not bind Council officers, elected Council members or other parties to the DA process.

Signed



Craig Casey
Development Assessment and Planning Officer
Planning and Environment Services East.



Kaipana Varghese,
A/ Team Leader Development Assessment and Planning
Planning and Environment Services East.

NSW RURAL FIRE SERVICE – PRE-DA ADVICE MEETING SUMMARY1 of 1

Template Version 1.0-23/03/14



Attachment D *Photographic Record*



Unformed Road Reserve North East



Proposed Lot 1



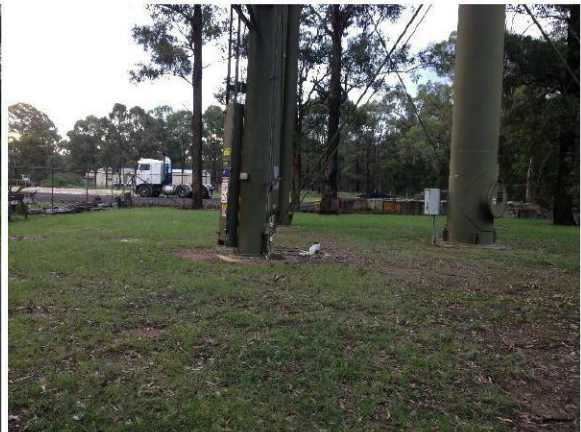
Existing Dwelling to be Demolished



Vane Street Unformed Road Reserve



Vane Street Existing Cul-de-sac



Adjoining property to South West



BUSHFIRE MANAGEMENT CONSULTANTS



Vane Street South Western End



Property to South West



Property to South West



Property to South West



Property to north east



Woodland to South East