Bushfire Assessment Report

Proposed:15 New Dwellings & Subdivision

At:
Lot 1068 in DA19/0704
16 Chapman Street,
Werrington NSW

Reference Number: 191311E

Prepared For: GLN Planning

25th February 2020

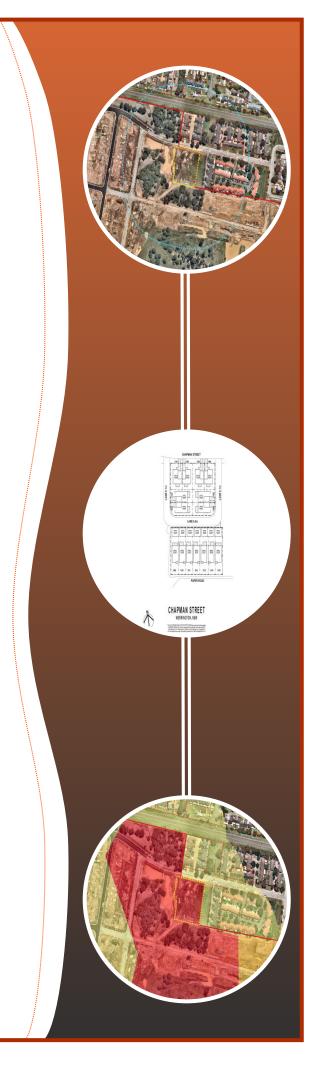


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Contents

		Page No.
Сору	right and disclaimers	2
List of Abbreviations		3
1.0	Introduction	4
2.0	Purpose of Report	4
3.0	Scope of Report	5
4.0	Referenced Documents and Persons	5
5.0	Compliance Table and Notes	5 - 7
6.0	Aerial view, Site Plan, Approved Subdivision Plan and Approved Central Park Landscape Plan	8 - 11
7.0	Bushfire Hazard Assessment	12 - 17
8.0	Site and Bushfire Hazard Determination	18 - 19
9.0	Recommendations	20 - 21
10.0	Conclusion	22
11.0	Annexure	23
-	List of referenced documents and attachments	
-	Attachments	

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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:

APZ Asset Protection Zone

AS3959 Australian Standard 3959 – 2018 as amended

BAL Bushfire Attack Level

BPMs Bushfire Protection Measures

BPLM Bushfire Prone Land Map

Council Penrith City Council

DA Development Application

DCP Penrith Development Control Plan 2014

EP&A Act Environmental Planning and Assessment Act - 1979

ESD Ecologically Sustainable Development

IPA Inner Protection Area

NCC National Construction Code

NP National Park

NSP Neighbourhood Safer Places

NSWFR NSW Fire & Rescue

OPA Outer Protection Area

PBP Planning for Bush Fire Protection 2019

ROW Right of Way

RF Act Rural Fires Act - 1997

RFS NSW Rural Fire Service

SEPP State Environmental Planning Policy

SFPP Special Fire Protection Purpose

SWS Static Water Supply

UWS University of Western Sydney

1.0 Introduction

The development proposal relates to the subdivision of Residue Lot 1068 (Stage 1C) in DA19/0704 to create fifteen (15) new residential allotments. The proposal also seeks consent for the construction of a new dwelling home within each newly created allotment.

The parent allotment for DA19/0704 is known as 16 Chapman Street, Werrington (Lot 1 DP 1144885). This approved development application granted consent for Staged Subdivision of Land to Create 227 Residential Lots, 17 Industrial Lots, Open Space Lots, 14 Residue Lots and Road Dedication.

The NSW Rural Fire Service issued General Terms of Approval under Division 4.8 of the *Environmental Planning and Assessment Act* 1979, and a Bush Fire Safety Authority, under section 100B of the *Rural Fires Act* 1997 subject to seven conditions of consent (ref DA20191029000754-CL55-1, dated 28 September 2020).

DA19/0704 has been activated with civil works well advanced and Stages 1A and 1B expected to be registered in June 2022, with the balance of the stages delivered by the end of 2022.

Penrith City Council's Bushfire Prone Land Map identifies that the subject site contains Category 1 Vegetation and is therefore considered bushfire prone land. It should be noted that the Bushfire Prone Lands Map has not been updated to reflect the development works associated with DA19/0704.

As the proposal includes the subdivision of bushfire prone land which can be lawfully used for residential purposes it is classified as integrated development under section 4.46 of the *Environmental Planning and Assessment Act* 1979.

The development is captured under section 100B of the *Rural Fires Act* 1997 and must obtain a Bush Fire Safety Authority from the Commissioner of the NSW Rural Fire Service.

The building works are classified as infill development and are captured by s4.14 of the *Environmental Planning and Assessment Act* 1979.

In accordance with the submission requirements detailed in clause 44 of the *Rural Fires Regulation* 2013 for a Bush Fire Safety Authority an assessment of the extent to which the proposed development conforms with or deviates from *Planning for Bush Fire Protection* (PBP) is required.

In this instance the proposal relates to a residential subdivision and therefore in addition to the aim and objectives detailed in Chapter 1 'Introduction' the proposal must satisfy the specific objectives, bushfire protection measures detailed in Chapter 5 'Residential and Rural Residential Subdivisions' and section 7 'Residential Infill Development' of PBP.

2.0 Purpose of Report

The purpose of this Bushfire Assessment Report is to provide GLN Planning, the Rural Fire Service and Penrith City Council with an independent bushfire assessment 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

The scope of this report is limited to providing a bushfire 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.

4.0 Referenced Documents and Persons

Comments provided are based on the requirements of the NSW 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 – 2019' for the purposes of bushfire hazard determination and Australian Standard 3959 – 2018 titled 'Construction of buildings in bushfire-prone areas' as amended for building/structural provisions.

A company representative has undertaken a site inspection of the subject property and the surrounding area. The 'Site Plan' (Layout no DA06, dated 22 Dec 2021) prepared by MPS Architects has been relied upon for this assessment.

5.0 Compliance Tables & Notes

The following table sets out the projects compliance with *Planning for Bush Fire Protection – 2019*.

Proposed Lots 1301 - 1308:

	Northwest	East	South	West
Vegetation Structure	Woodland	Maintained curtilages	Remnant	Remnant
Slope	0 degrees & up	N/A	0 degrees & up	0 degrees & up
Required Asset Protection Zone	10 metres	N/A	11 metres	11 metres
Available Asset Protection Zone	>26 metres	N/A	>47 metres	>41 metres
Significant Landscape Features	Chapman Street	Webb Street road reservation	Proposed Lots 1309-1315 / Central Park	Detention basin open lawn area / Central Park
Threatened Species	Cumberland Plain Woodland	None Known	Cumberland Plain Woodland	Cumberland Plain Woodland
Aboriginal Relics	Not Known By Others	Not Known By Others	Not Known By Others	Not Known By Others
Bushfire Attack Level	BAL 12.5	BAL Low	BAL 12.5	BAL 12.5

Proposed Lot 1309 - 1315:

	Northwest	East	South	West
Vegetation Structure	Woodland	Maintained curtilages	Remnant	Remnant
Slope	0 degrees & up	N/A	0 degrees & up	0 degrees & up
Required Asset Protection Zone	10 metres	N/A	11 metres	11 metres
Available Asset Protection Zone	>67 metres	N/A	12 metres	>27 metres
Significant Landscape Features	Proposed Lots 1301-1308 / Chapman Street	Webb Street road reservation	Approved pedestrian path / Central Park	Central Park
Threatened Species	Cumberland Plain Woodland	None Known	Cumberland Plain Woodland	Cumberland Plain Woodland
Aboriginal Relics	Not Known By Others	Not Known By Others	Not Known By Others	Not Known By Others
Bushfire Attack Level	BAL 12.5	BAL Low	BAL 29	BAL 12.5

Asset Protection Zones Compliance

The minimum required Asset Protection Zones were determined from Table A1.12.2 of Planning for Bush Fire Protection (PBP).

The subject development exceeds the minimum required Asset Protection Zones under PBP.

The separation from the hazard interfaces includes the existing Chapman Street, proposed internal road and car parking and approved landscape works within Central Park including detention basin open lawn area and walking paths.

All proposed allotments will be maintained in accordance with an Asset Protection Zone.

Construction Level Compliance

The highest Bushfire Attack Level to the proposed dwelling homes were determined from Table A1.12.5 of PBP to be BAL 29 for proposed Lots 1309 - 1315 and BAL 12.5 for proposed Lots 1301-1308.

In accordance with section A1.8 of PBP the northern elevation of the proposed dwellings within Lots 1309 - 1315 can be downgraded to BAL 19 due to shielding.

Access and Services

Guideline Ref.	Proposed Development Determinations
	The subject site has street frontage to Chapman Street to the north.
Public Roads	The most distant external point of the proposed dwellings will be located within 70 metres of the new access road which will meet the non-perimeter road requirements within Table 5.3b of PBP. The Property Access requirements detailed in section 7 of PBP are therefore not applicable.
Water Supply	The existing hydrant network will be extended into the site to service the proposed residential allotments. The sizing, spacing and pressures of the new hydrant system must comply with AS2419.1-2021.
Evacuation	Evacuation will be possible by utilising proposed and existing road infrastructure. It is encouraged that the occupants of any future dwelling that is constructed on bushfire prone land complete a Bush Fire Survival Plan addressing "Prepare, Act, Survive" as advocated by the NSW RFS http://www.rfs.nsw.gov.au/ under publications / bushfire safety.
Electrical Supply	New supply will be provided.

6.0 Aerial view, Site Plan, Approved Subdivision Plan & Approved Central park Landscape Plan

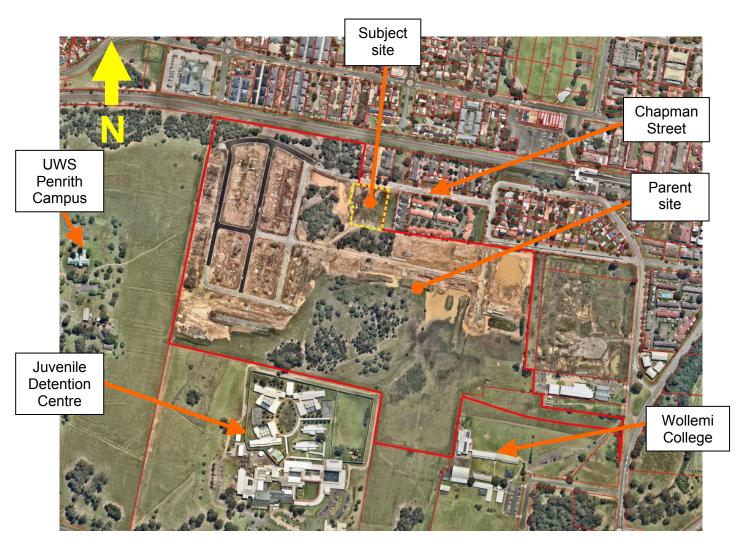
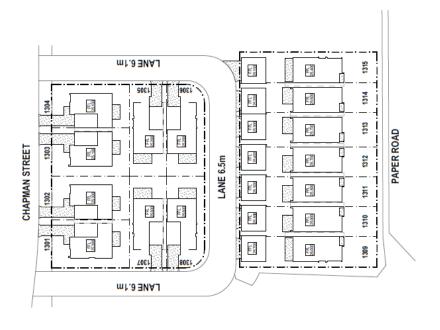


Image 01: Aerial view of the subject area (C/- Nearmap)







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Image 02: Extract from the Proposed Site Plan

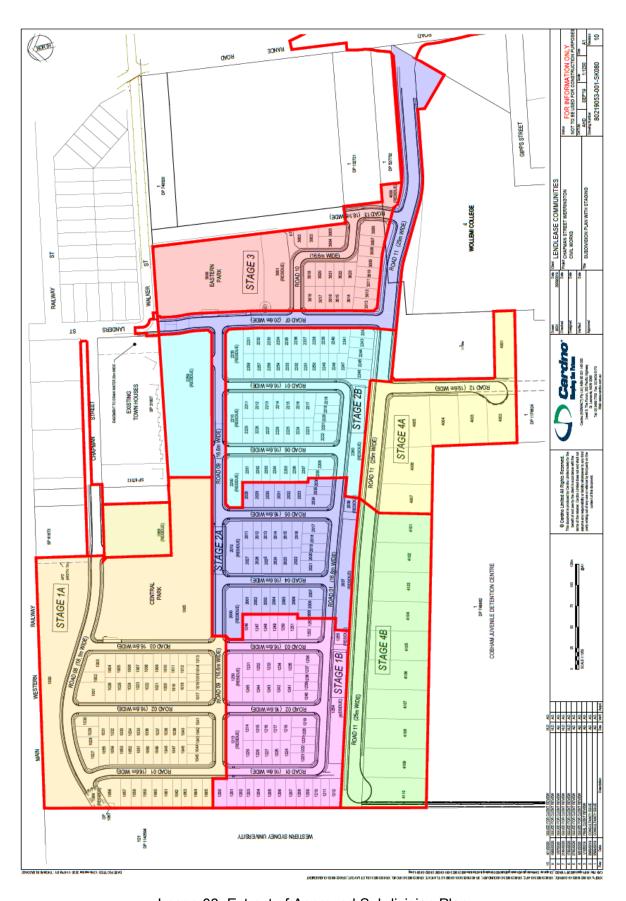


Image 03: Extract of Approved Subdivision Plan



Image 04: Extract of Approved Landscape Plan

7.0 Bushfire Hazard Assessment

7.01 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 - 2019' (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 – 2018 'Construction of buildings in bushfire prone areas'.

Planning for Bush Fire Protection – 2019, (PBP) formally adopted on the 1st March 2020provides 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 on land that contains Category 1, 2 or 3 Vegetation and / or their associated buffer zones.

The document also acknowledges 'infill' developments associated with re-development of existing properties and allows some higher levels of building safety where the increased 'set backs' (APZ's) may not be achievable.

The development proposal relates to relates to subdivision of Residue Lot 1068 in DA19/0704 to create fifteen (15) residential allotments and the construction of a new dwelling home within each newly created allotment at 16 Chapman Street, Werrington.

As the proposal includes a residential subdivision it is captured under section 100B of the *Rural Fires Act* 1997 and consequently must be issued a Bushfire Safety Authority from the NSW Rural Fire Service.



Image 05: Extract from Penrith City Council's Bushfire Prone Land Map

7.02 Location

The subject site is Residue Lot 1068 (Stage 1C) in DA19/0704. The parent site is known as 16 Chapman Street, Werrington (Lot 1 DP 1226122) and is located within Penrith City Councils Local Government Area. The parent site also partial extends over Lot 2 DP 1176624 (Wollemi College).

The parent site has street frontage to Chapman Street to the north and Walker Street to the northeast and abuts the main western railway and existing residential development to the north, existing residential and commercial development to the east, Wollemi College, Cobham Juvenile Justice Centre and a private allotment to the south and the University of Western Sydney Penrith (Werrington North) Campus to the west.

The subject site is located within the northern portion of the parent site and has street frontage to Chapman Street to the north and abuts the unformed Webb Street road reserve to the east and Central Park to the south and west.

The subject site forms part of the 'South Werrington Urban Village' under the Penrith Development Control Plan 2014 and is zoned 'R4 High Density Residential'.

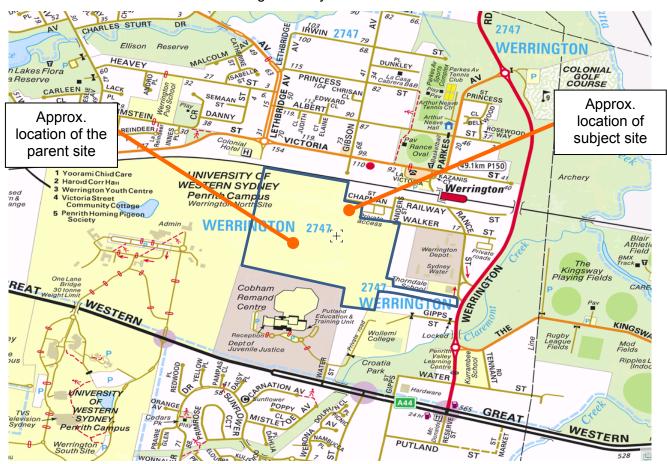


Image 06: Extract from street-directory.com.au

7.03 Vegetation

The subject site contains pockets of Cumberland Plain Woodland (CPW), a critically endangered ecological community (CEEC) listed under the *Biodiversity Conservation Act 2016*.

The CPW onsite has been identified as being NSW Plant Community Type 849: Grey Box-Forest Red Gum Grassy Woodland on Flats of the Cumberland Plain, Sydney Basin, being a Grassy Woodland formation.

This assessment has considered the land management proposed as part of the approved Development Application (DA19/0704). That application requires that all allotments excluding Lot 1000 (E2 Environmental Conservation zoned land) Lot 1065 and Lot 3000 be maintained in accordance with an Asset Protection Zone.

There is also a requirement that Central Park Lot 1065 must be managed in accordance with the Vegetation Management Plan prepared by Niche Environment & Heritage (Ref: 5194, dated 10 July 2020).

Central Park retains and protects two areas of CPW outside the proposed detention basins and managed areas, with both being less than a hectare in size. The retained CPW within Central Park has been assessed as Remnant hazards in accordance with A1.11.1 of PBP.

The proposed residue allotment (Lot 1000), which comprises of the land zoned 'E2 Environmental Conservation', will protect and enhance the existing CPW. A 7 metre Asset Protection Zone has also been condition along the eastern boundary of Lot 1000 to provide protection to the existing residential development. For the purpose of assessment under PBP Lot 1000, excluding the enforced APZ, has been assessed as Woodland.



Image 07: Extract from Approved VMP (Niche November 2020)

7.04 Slope and Topography

The slope of the land under the classified vegetation has a direct influence on the forward rate of spread, fire intensity and radiant heat exposure. The effective slope is considered to be the slope under the classified vegetation which will most significantly influence bushfire behaviour toward the development site.

In accordance with A1.4 'Determine slope' of PBP the slope assessment is to be derived from the most detailed contour data available. The slope that would **most significantly** influence bushfire behaviour was determined from topographic imagery (1 metre contours sourced from ELVIS - Geoscience Australia) to be:

O degrees and up slope within the hazards to the south, west and northwest



Image 08: Aerial view of the subject area overlayed with 1 metre contours

7.05 Asset Protection Zones

The minimum required Asset Protection Zones were determined from Table A1.12.2 of Planning for Bush Fire Protection (PBP) to be 10 metres to the northwest and 11 metres to the south and west.

The closest available dwelling footprint within proposed Lots 1301-1308 was found to be located >26 metres from the hazard interface to the northwest, >47 metres from the hazard interface to the south and >41 metres from the hazard interface to the west.

The closest available dwelling footprints within lots 1309-1315 were found to be located >67 metres from the hazard interface to the northwest, 12 metres from the hazard interface to the south and >27 metres from the hazard interface to the west

The subject development exceeds the minimum required Asset Protection Zones under PBP.

The separation from the hazard interfaces includes the existing Chapman Street, proposed internal road and car parking and approved landscape works within Central Park including detention basin open lawn area and walking paths.

All proposed allotments will be maintained in accordance with an Asset Protection Zone.



Image 09: Aerial view of the subject area showing the site plan and Central Park plan with the minimum APZ

7.06 Fire Fighting Water Supply

The development will include the installation of hydrants along the proposed road. The sizing, spacing and pressures of the proposed hydrants must be in accordance with AS2419.1-2021.

The required water supply is considered adequate for the replenishment of attending fire services.

7.07 Property Access - Fire Services & Evacuation

The subject site has street frontage to Chapman Street to the north.

The proposal includes the construction of a new internal loop road.

Comprehensive vehicle access will be available around Central Park via the approved road network under DA19/0704 and the existing Chapman Street. These roads are considered to be the logical platform for attending fire services undertaking hazard reduction or fire suppression activities, noting fire crews would have overlap in deploying two lengths of hose from Chapman Street and the approved road along the southern side of Central Park.

In consideration of this comprehensive vehicle access and low threat nature of the hazards it is considered unnecessary and unreasonable to apply the Perimeter Road requirements to the proposed road. It is our recommendation that the proposed road comply the Non-Perimeter road requirements detailed in table 5.3b of PBP.

The most distant external point of the proposed dwellings will be located within 70 metres of Chapman Street and the new access road and therefore the Property Access requirements detailed in section 7.4 of PBP are not applicable.

Fire services have free vehicle access around the subject site via the approved road system. Attending fire services can access the hazards via the approved roads or Chapman Street for hazard reduction or fire suppression activities.

Proposed access for fire services and opportunities for occupant evacuation are considered adequate for this property.

8.0 Site & Bushfire Hazard Determination

8.01 Planning for Bush Fire Protection - 2019

Planning for Bush Fire Protection – 2019 (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.

In this instance the subject property has been identified as being bushfire prone land therefore it is appropriate to apply PBP.

8.02 Australian Standard AS 3959 – 2018 'Construction of buildings in bushfire –prone areas'

Australian Standard 3959 – 2018 '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 Bushfire Protection – 2019 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 - 2018.

8.03 Correlation between bushfire impact and AS3959

Bushfire Attack Level	Maximum radiant heat impact (kW/m²)	Level of construction under AS3959-2018
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

8.04 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 was assessed against the requirements of Planning for Bush Fire Protection 2019 noting the following:

- a) The new hydrants will comply with the sizing, spacing and pressures of AS2419.1-2021.
- b) The proposed development exceeds the minimum required Asset Protection Zones for Residential Subdivision in accordance with table A1.12.2 of PBP.
- c) Recommendations to maintain the Asset Protection Zones within the subject property will be included.

8.05 Viable Construction Method

The objectives of Planning for Bush Fire Protection – 2019 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.

The highest Bushfire Attack Level to the proposed dwelling homes were determined from Table A1.12.5 of PBP to be BAL 29 for proposed Lots 1309 - 1315 and BAL 12.5 for proposed Lots 1301-1308.

In accordance with section A1.8 of PBP the northern elevation of the proposed dwellings within Lots 1309 - 1315 can be downgraded to BAL 19 due to shielding.

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Page 19 of 23

9.0 Recommendations

The following recommendations are provided as the minimum necessary for compliance with Planning for Bush Fire Protection – 2019. Additional recommendations are provided to supplement these minimum requirements where considered necessary.

Asset Protection Zones

 The all grounds within proposed residential allotments which are not built upon are to be maintained in accordance with an Asset Protection Zone (Inner Protection Area) as detailed in the NSW Rural Fire Service's document 'Standards for Asset Protection Zones' and Appendix 4 of Planning for Bush Fire Protection 2019.

Construction

Proposed Lots 1309-1315:

- 2. That roofing and new construction facing south, east and west shall comply with sections 3 and 7 (BAL 29) Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas' and section 7.5 of "Planning for Bush Fire Protection".
- 3. That new construction facing north shall comply with sections 3 and 6 (BAL 19) Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas' and section 7.5 of "Planning for Bush Fire Protection".

Proposed Lots 1301-1308:

4. That new construction shall comply with sections 3 and 5 (BAL 12.5) Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas' and section 7.5 of "Planning for Bush Fire Protection".

Services

Water:

- 5. That the new hydrant system is to comply with the requirements detailed in Table 5.3c of *Planning for Bush Fire Protection* 2019, specifically:
 - fire hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1:2021;
 - hydrants are not located within any road carriageway;
 - fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1:2021.
 - all above-ground water service pipes external to the building are metal, including and up to any taps.
 - fire hose reels are constructed in accordance with AS/NZS 1221:1997 Fire hose reels, and installed in accordance with the relevant clauses of AS 2441:2005 Installation of fire hose reels.

Electricity:

- 6. Any new electrical services must comply with section 5.3.3 of *Planning for Bush Fire Protection* 2019, specifically:
 - where practicable, electrical transmission lines are underground.
 - where overhead electrical transmission lines are proposed:
 - lines are installed with short pole spacing (30 metres), unless crossing gullies, gorges or riparian areas; and
 - no part of a tree is closer to a power line than the distance set out in ISSC3 Guideline for Management Vegetation Near Power Lines.

Gas:

- 7. Any new gas services must comply with section 5.3.3 of *Planning for Bush Fire Protection* 2019, specifically:
 - reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 - The storage and handling of LP Gas, the requirements of relevant authorities, and metal piping is used;
 - all fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side;
 - · connections to and from gas cylinders are metal;
 - polymer-sheathed flexible gas supply lines are not used; and
 - above-ground gas service pipes are metal, including and up to any outlets.

Access

- 8. That the new internal roads shall comply with the requirements for Non-Perimeter Roads as detailed in Table 5.3b of PBP, specifically:
 - property access roads are two-wheel drive, all-weather roads;
 - traffic management devices are constructed to not prohibit access by emergency services vehicles;
 - maximum grades for sealed roads do not exceed 15 degrees and an average grade of not more than 10 degrees or other gradient specified by road design standards, whichever is the lesser gradient;
 - the capacity of perimeter and non-perimeter road surfaces and any bridges/causeways is sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes); bridges/ causeways are to clearly indicate load rating.
 - hydrants are located outside of parking reserves and road carriageways to ensure accessibility to reticulated water for fire suppression;
 - hydrants are provided in accordance with the relevant clauses of AS 2419.1:2005 - Fire hydrant installations System design, installation and commissioning;
 - minimum 5.5m carriageway width kerb to kerb;
 - parking is provided outside of the carriageway width;
 - curves of roads have a minimum inner radius of 6m;
 - the road crossfall does not exceed 3 degrees; and
 - a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.

10.0 Conclusion

The development proposal relates to the subdivision of Residue Lot 1068 (Stage 1C) in DA19/0704 to create fifteen (15) new residential allotments. The proposal also seeks consent for the construction of a new dwelling home within each newly created allotment.

The parent allotment for DA19/0704 is known as 16 Chapman Street, Werrington (Lot 1 DP 1144885). This approved development application granted consent for Staged Subdivision of Land to Create 227 Residential Lots, 17 Industrial Lots, Open Space Lots, 14 Residue Lots and Road Dedication.

Penrith City Council's Bushfire Prone Land Map identifies that the subject site contains Category 1 Vegetation and is therefore considered bushfire prone land. It should be noted that the Bushfire Prone Lands Map has not been updated to reflect the development works associated with DA19/0704.

The subject development relates to the subdivision of bushfire prone land which can be lawfully used for residential purposes and is therefore classified as integrated development under section 4.46 of the *Environmental Planning and Assessment Act* 1979.

The development is captured under section 100B of the *Rural Fires Act* 1997 and must obtain a Bush Fire Safety Authority from the Commissioner of the NSW Rural Fire Service. The building works are classified as infill development and are captured under s4.14 of the *Environmental Planning and Assessment Act* 1979.

All property development within bushfire affected areas is subject to the relevant specifications and requirements detailed in the document 'Planning for Bush Fire Protection - 2019' (PBP).

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.

We are therefore in support of the Development Application.

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

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11.0 Annexure 01

List of Referenced Documents

Australian Building Codes Board (2019). National Construction Code Volume Two - Building Code of Australia. ABCB

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Rural Fires Act 1997

Rural Fires Regulations 2013

Rural Fire Service NSW (2005). Standards for Asset Protection Zones

Rural Fire Service NSW (2017). NSW Local Government Areas FDI

Site Plan prepared by MPS Architects, Layout no DA06, Date 22 Dec 2021.

Standards Australia (2018). AS3959 Construction of buildings in bushfire-prone areas.

Standards Australia (2014). AS/NZS 1596 The storage and handling of LP Gas

Liverpool City Council (2013). Liverpool Growth Centres Development Control Plan

Acknowledgements to:

Geoscience Australia

Nearmap

Street-directory.com.au

Attachments

Attachment 01: Section 4.14 Certificate



Bushfire Hazard Solutions

(Pty. Limited) ABN 19 057 337 774 PO Box 124, Berowra NSW 2081 Telephone: (02) 9457 6530 www.bushfirehazardsolutions.com.au



BUSHFIRE RISK ASSESSMENT CERTIFICATE UNDER PART 4 DIVISION 4.3 SECTION 4.14 OF THE EP&A ACT 1979 NO 203

PROPERTY ADDRESS:	16 Chapman Street, Werrington		
DESCRIPTION OF PROPOSAL:	15 new dwellings (construction only)		
PLAN REFERENCE: (relied upon in report preparation)	Site Plan prepared by MPS Architects, Layout no DA06, Date 22 Dec 2021.		
BAL RATING:	BAL 29		
BUSHFIRE ASSESSMENT REPORT REFERENCE:	191311E		
REPORT DATE	25 th February 2022		
CERTIFICATION NO/ACCREDITED SCHEME	BPAD46966		

I Andrew Muirhead of Building Code and Bushfire Hazard Solutions Pty Ltd hereby certify, in accordance with Part 4 Division 4.3 Section 4.14 of the *Environmental Planning and Assessment Act 1979 No 203:*

- 1. That I am a person recognised by the NSW Rural Fire Service as a qualified consultant in bushfire risk assessment; and
- 2. That subject to the recommendations contained in the Bushfire Risk Assessment Report the proposed development conforms specifications and requirements of the documents entitled *Planning for Bush Fire Protection* prepared by the NSW Rural Fire Service in co-operation with the Department of Planning and any other documents as prescribed by Part 4 Division 4.3 Section 4.14 of the *Environmental Planning and Assessment Act 1979 No 203.*

I am aware that the Bushfire Assessment Report, prepared for the above mentioned site is to be submitted in support of a development application for this site and will be relied upon by Council as the basis for ensuring that the bushfire risk management aspects of the proposed development have been addressed in accordance with *Planning for Bush Fire Protection 2019*.

Signature: _____ Date: 25th February 2022