

# Bushfire Assessment Report

***Proposed:***  
**Display Village &  
Subdivision**

***At:***  
**16 Chapman Street,  
Werrington NSW**

*Reference Number:* 191311C

*Prepared For:*  
GLN Planning

**18<sup>th</sup> February 2020**



*Prepared By:*  
**Building Code & Bushfire  
Hazard Solutions Pty Limited**

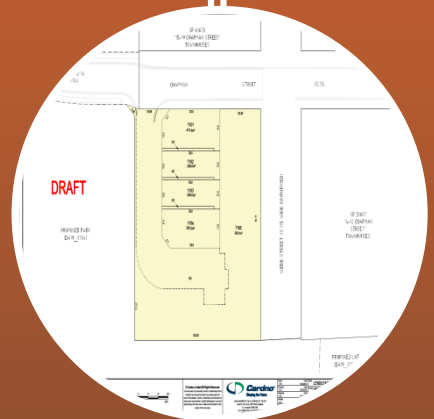
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Section 4.14 applications (under the Environmental Planning and Assessment Act 1979) and all infill development applications may be referred by Council to the NSW Rural Fire Service for review and concurrence during the DA process. S100B applications under the Rural Fires Act 1997 (subdivisions and Special Fire Protection Purpose Developments), Flame Zone determinations and Alternate Solutions must be referred by Council to the NSW Rural Fire Service for review and receipt of a Bushfire Safety Authority (BSA) or other such recommended conditions from the NSW Rural Fire Service before the consent can be granted.

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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
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
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

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The development proposal relates to the establishment and operation of a temporary exhibition village that comprises a sales and information pod, associated car park and landscaping at 16 Chapman Street, Werrington.

The proposal also involves a subdivision of Proposed Lot 1068 in DA19/0704 to create four (4) residential allotments and the construction of a new dwelling home within each newly created allotment.

Penrith City Council's Bushfire Prone Land Map identifies that the site contains Category 1 and Category 2 Vegetation and their associated buffer zones therefore the application of Planning for Bush Fire Protection 2006 (PBP) must apply in this instance.

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.

The subject site forms part of the 'South Werrington Urban Village' under the Penrith Development Control Plan 2014.

The subject 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 vegetation identified as being the hazard is within the proposed northern (E2 Environmental Conservation) residue lot to the northwest and proposed Central Park to the south and west.

There is an active Development Application (DA19/0704) under assessment for the subject site which seeks approval a staged subdivision to create 265 residential lots, 14 industrial lots, open space lots, 17 residue lots and road dedication. The proposed development is located within Stage 1C of the aforementioned application. It is expected that both applications will receive concurrent approval.

## 2.0 Purpose of Report

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The purpose of this Bushfire Assessment Report is to provide GLN Planning, the Rural Fire Service and Penrith City 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

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 – 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 undertaken a site inspection of the subject property and the surrounding area. The 'Subdivision Plan of Proposed Lot 1068 in DA19\_0704 At 16 Chapman Street, Werrington' (dwg no 80219053-003-1C-SK001, rev 1, dated 12/02/2020) prepared by Cardno 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 – 2006*.

#### **Proposed Lot 1101:**

	Northwest	East	South	West
<b>Vegetation Structure</b>	Woodland	Maintained curtilages	Remnant	Remnant
<b>Slope</b>	0 degrees & up	N/A	0 – 5 degrees down	0 degrees & up
<b>Required Asset Protection Zone</b>	10 metres	N/A	10 metres	10 metres
<b>Available Asset Protection Zone</b>	>25 metres	N/A	>65 metres	>41 metres
<b>Significant Environmental Features</b>	Chapman Street	Webb Street road reservation	Central Park	Central Park
<b>Threatened Species</b>	Cumberland Plain Woodland	Cumberland Plain Woodland	Cumberland Plain Woodland	Cumberland Plain Woodland
<b>Aboriginal Relics</b>	Not Known By Others	Not Known By Others	Not Known By Others	Not Known By Others
<b>Bushfire Attack Level</b>	BAL 19	BAL Low	BAL 12.5	BAL 12.5

**Proposed Lots 1102-1104:**

	<b>Northwest</b>	<b>East</b>	<b>South</b>	<b>West</b>
<b>Vegetation Structure</b>	Woodland	Maintained curtilages	Remnant	Remnant
<b>Slope</b>	0 degrees & up	N/A	0 – 5 degrees down	0 degrees & up
<b>Required Asset Protection Zone</b>	10 metres	N/A	10 metres	10 metres
<b>Available Asset Protection Zone</b>	>35 metres	N/A	>31 metres	>41 metres
<b>Significant Environmental Features</b>	Chapman Street	Webb Street road reservation	Central Park	Central Park
<b>Threatened Species</b>	Cumberland Plain Woodland	Cumberland Plain Woodland	Cumberland Plain Woodland	Cumberland Plain Woodland
<b>Aboriginal Relics</b>	Not Known By Others	Not Known By Others	Not Known By Others	Not Known By Others
<b>Bushfire Attack Level</b>	BAL 12.5	BAL Low	BAL 12.5	BAL 12.5

## Asset Protection Zones Compliance

The minimum required Asset Protection Zones were determined from Table A2.4 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 proposed maintained basins.

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 2.4.2 of AS3959 'Construction of buildings in bushfire-prone areas' 2009 to be BAL 19 for proposed Lot 1101 and BAL 12.5 for proposed Lots 1102-1104.

In accordance with section 3.5 of AS3959 the eastern and southern elevations of the proposed dwelling home within Lot 1101 can be downgraded to BAL 12.5 due to shielding.

The proposed sales and information pod has a Class 6 classification under the National Construction Code (NCC). The NCC does not provide for any bush fire specific performance requirements for Class 5 to 8 structures and as such Australian Standard 3959 'Construction of buildings in bushfire-prone areas' 2009 does not apply as a set of 'deemed to satisfy' provisions.



In relation to Class 5 to 8 structures PBP 2006 states:

*The general fire safety construction provisions are taken as acceptable solutions, but the aim and objectives of PBP apply in relation to other matters such as access, water and services, emergency planning and landscaping / vegetation management.*

*In circumstances where the aim and objectives of PBP (section 1.1) are not met, then the construction requirements for bush fire protection will need to be considered on a **case-by-case basis**.*

Suitable access, water supply and services and landscaping / vegetation management have been addressed with the residential subdivision component of this proposal. We have therefore recommended an ember upgrade package for the proposed sales and information pod to mitigate the threat of bushfires.

## Access and Services

Guideline Ref.	Proposed Development Determinations
Public Roads	<p>The subject site has street frontage to Chapman Street to the north and Walker Street to the northeast.</p> <p>The most distant external point of the proposed dwellings will be located within 70 metres of Chapman Street, which supports to operational use of fire-fighting vehicles. The Property Access requirements detailed in section 4.1.3(2) of PBP are therefore not applicable.</p>
Water Supply	<p>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 AS2419.1-2005.</p>
Evacuation	<p>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 <a href="http://www.rfs.nsw.gov.au/">http://www.rfs.nsw.gov.au/</a> under publications / bushfire safety.</p>
Electrical Supply	<p>New supply will be provided.</p>



## 6.0 Aerial view, Subdivision Plan & Local Planning Controls

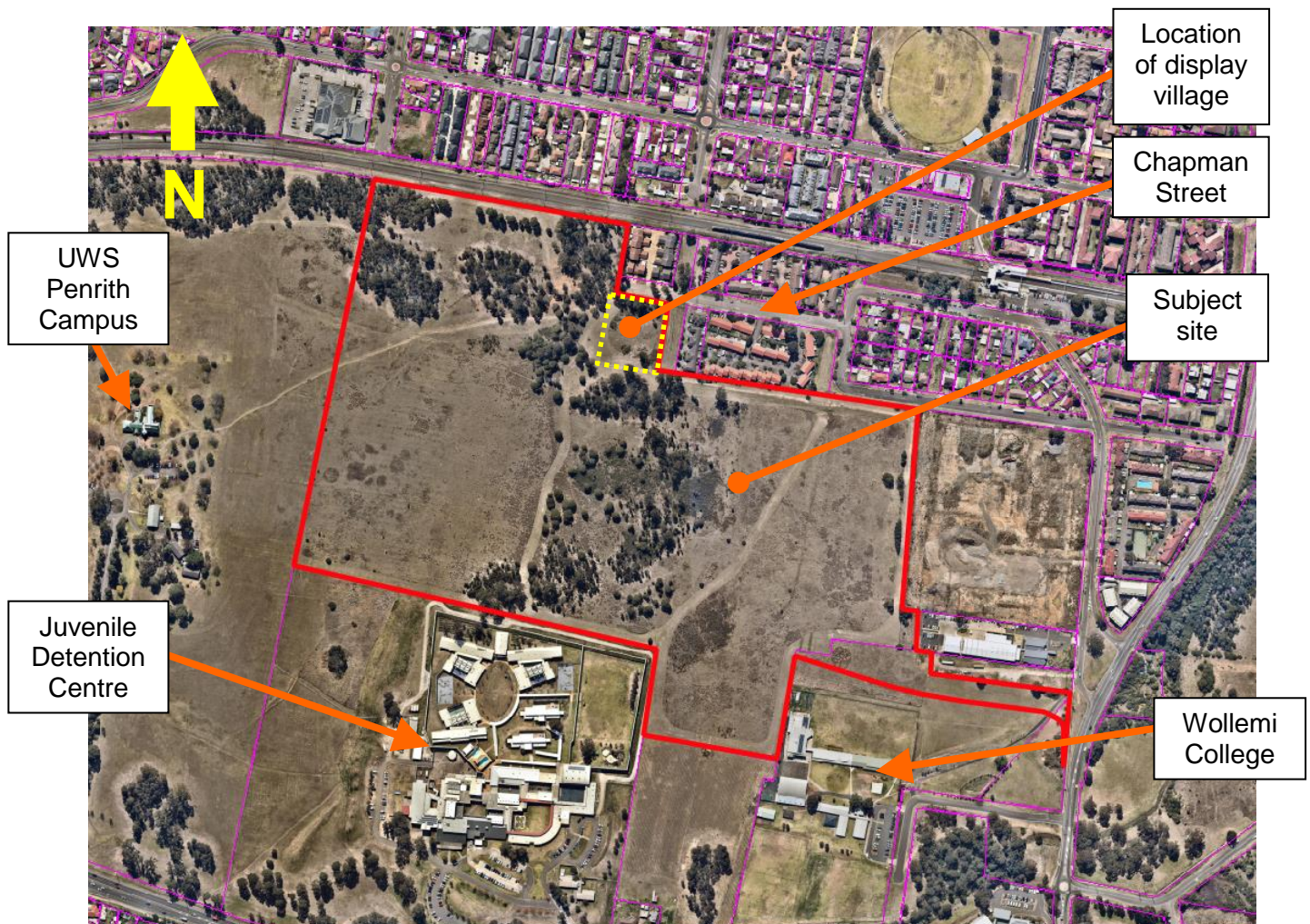


Image 01: Aerial view of the subject area (C/- Nearmap)

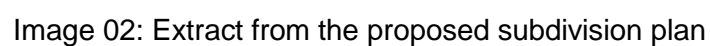




Image 03: Urban Structure Plan (South Werrington Urban Village) – Penrith DCP

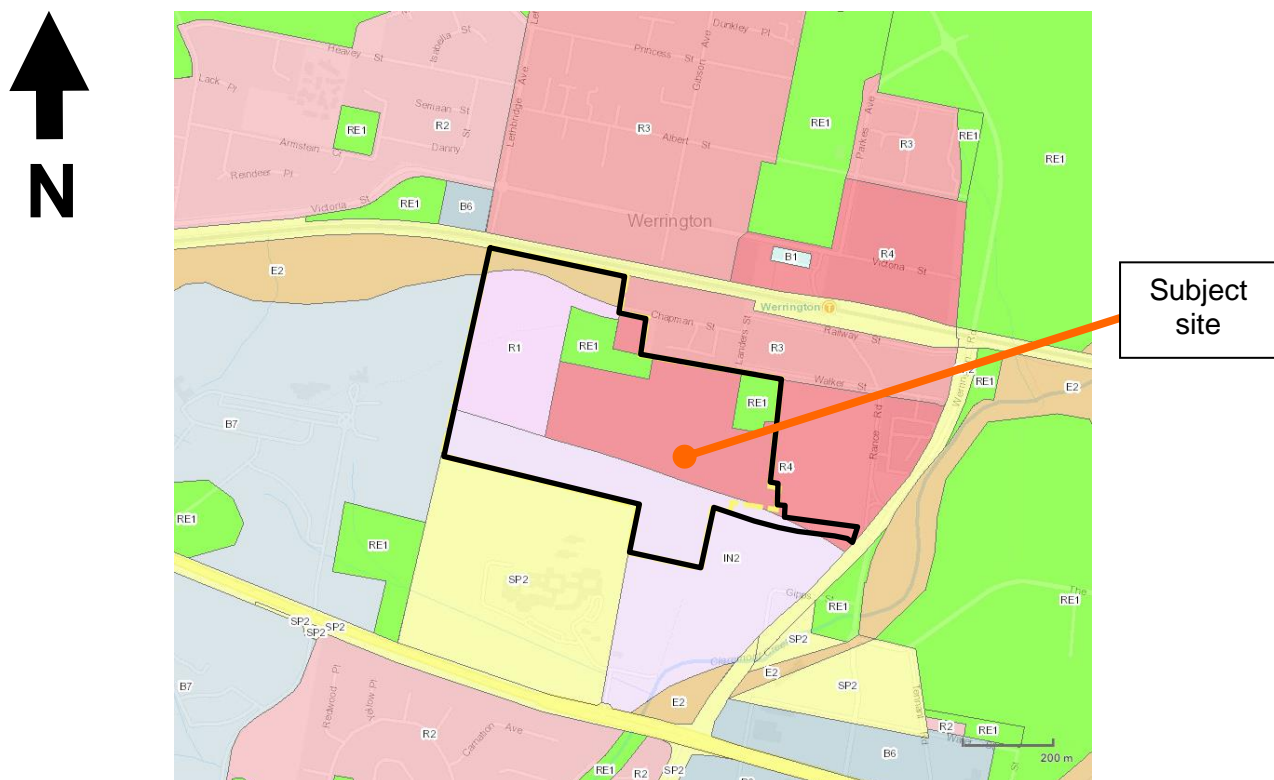


Image 04: Zoning of subject area (C/- NSW Planning Portal)



## 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 - 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 – 2009 'Construction of buildings in bushfire prone areas'.

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 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 the establishment and operation of a temporary exhibition village that comprises a sales and information pod, associated car park and landscaping within an existing allotment. The proposal also involves a subdivision to create four (4) residential allotments and the construction of a new dwelling home within each newly created allotment.

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.

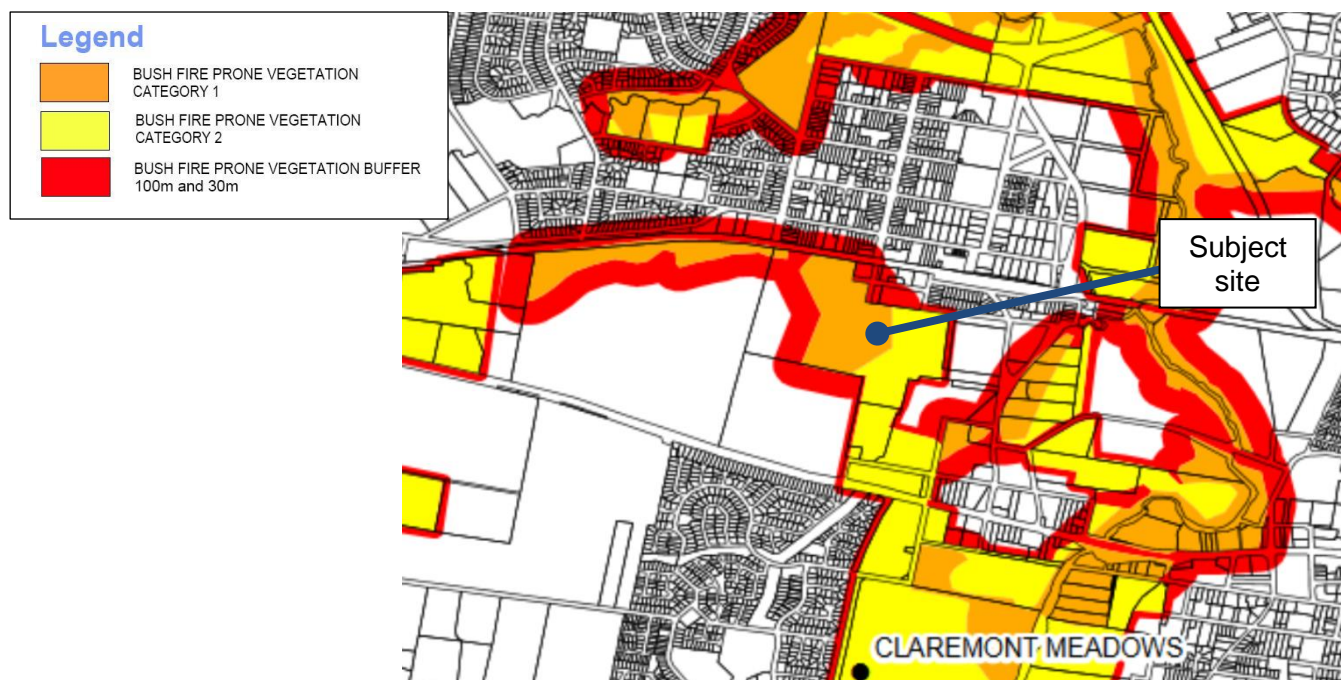


Image 05: Extract from Penrith City Council's Bushfire Prone Land Map

## 7.02 Location

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

There is currently an active Development Application (DA19/0704) under assessment for the subject site which seeks approval a staged subdivision to create 265 residential lots, 14 industrial lots, open space lots, 17 residue lots and road dedication. The proposed development is located within Stage 1C of the aforementioned application. It is expected that both applications will receive concurrent approval.

The subject site forms part of the 'South Werrington Urban Village' under the Penrith Development Control Plan 2014 and is zoned 'R1 General Residential', 'R4 High Density Residential', 'IN2 Light Industrial', 'RE1 Public Recreation' and 'E2 Environmental Conservation'.

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

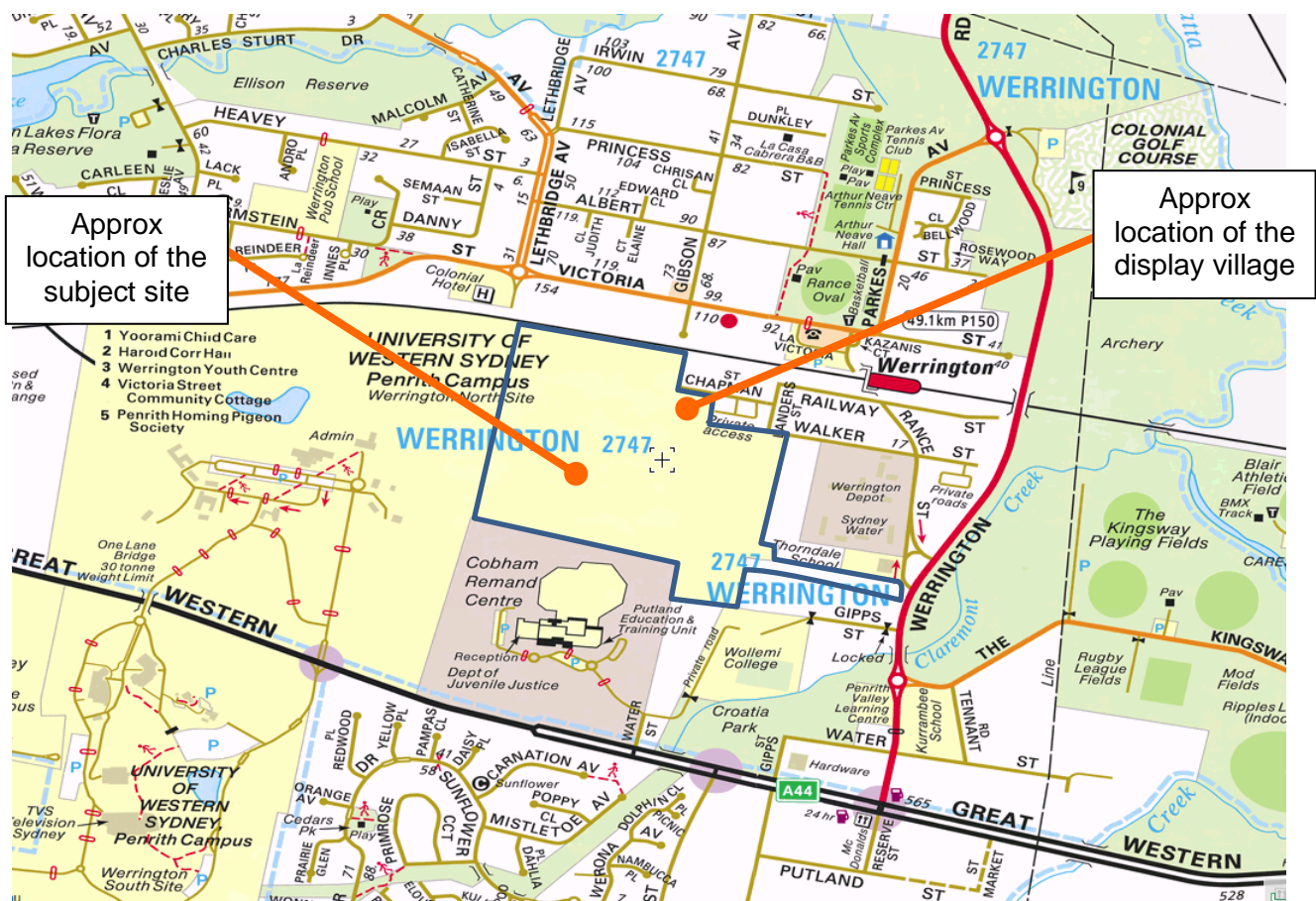


Image 06: Extract from street-directory.com.au



## 7.03 Vegetation

The subject site was found to be vacant, consisting of periodically slashed pastures and 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 active Development Application (DA19/0704) which is currently under assessment. That application includes a recommendation that all proposed allotments excluding proposed Lot 1000 (E2 Environmental Conservation zoned land) and the retained CPW within Central Park (Lot 2269) be maintained in accordance with an Asset Protection Zone.

The active Development Application includes the creation of two (2) open space allotments (Central and Eastern Parks) and a single residue allotment (Lot 1000) comprising of the land zoned 'E2 Environmental Conservation'.

The proposed Central Park will retain and protect two areas of CPW outside the proposed detention basins and 11 metre wide designated APZ (located along its eastern boundary), with both being less than a hectare in size. The retained CPW within Central Park has been assessed as Remnant hazards in accordance with A2.3 of PBP.

### Central Reserve - Landscape Masterplan

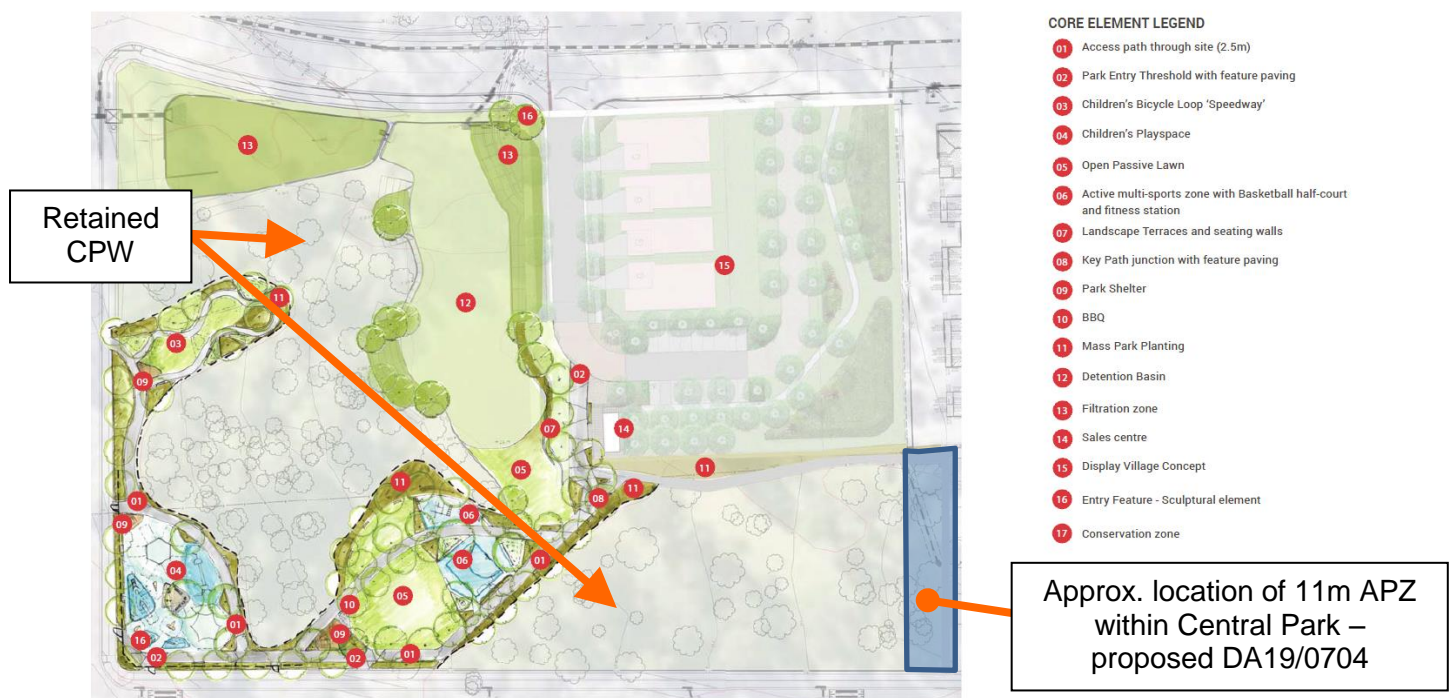


Image 07: Extract from the Landscape Masterplan of Central Park (Reserve)

The proposed residue allotment (Lot 1000), which comprises of the land zoned 'E2 Environmental Conservation', will protect and enhance the existing CPW. A Vegetation Management Plan has been prepared by Horticultural Management Services (dated 14<sup>th</sup> March 2016) to ensure the conservation measures are achieved. For the purpose of assessment under PBP the entirety of proposed Lot 1000 has been assessed as a Woodland hazard.

For the purpose of assessment for this matter we have determined the vegetation posing a hazard to the west and south to be Remnant and the vegetation posing a hazard to the northwest to be Woodland.



Photograph 01: View of pocket of CPW within the subject site



Photograph 02: View of pocket of CPW within the subject site



## 7.04 Slope and Topography

The slope that would most significantly affect bushfire behaviour within the hazard must be assessed for at least 100 metres. The effective slopes were determined using 1 metre LiDar contour mapping of the subject area in conjunction with site observations and determined to be:

- 0 – 5 degrees down slope within the hazard to the south
- 0 degrees and up slope within the hazards to the west and northwest



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

## 7.05 Asset Protection Zones

The minimum required Asset Protection Zones were determined from Table A2.4 of Planning for Bush Fire Protection (PBP) to be 10 metres to the south, west and northwest.

The closest available dwelling footprint was found to be located >31 metres from the hazard interface to the south, >41 metres from the hazard interface to the west and >25 metres from the hazard interface to the northwest.

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 proposed maintained basins.

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

That active Development Application (DA19/0704) includes a recommendation that all proposed allotments excluding proposed Lot 1000 (E2 Environmental Conservation zoned land) and the retained CPW within Central Park (Lot 2269) be maintained in accordance with an Asset Protection Zone. It should be noted that regardless of the approval of the active DA the proposal can still satisfy the minimum required APZs.

## 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 AS2419.1-2005.

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 and Walker Street to the northeast.

The most distant external point of the proposed dwellings will be located within 70 metres of Chapman Street, which supports to operational use of fire-fighting vehicles. The Property Access requirements detailed in section 4.1.3(2) of PBP are therefore not applicable.

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

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 - 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.*

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 – 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 Bushfire 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.

### 8.03 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



## 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 located at 16 Chapman Street, Werrington was assessed against the requirements of Planning for Bush Fire Protection 2006 noting the following:

- a) The new hydrants will comply with the sizing, spacing and pressures of AS2419.1-2005.
- b) The proposed development exceeds the minimum required Asset Protection Zones for Residential Subdivision in accordance with Appendix 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 – 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.

The highest Bushfire Attack Level to the proposed dwelling homes were determined from Table 2.4.2 of AS3959 'Construction of buildings in bushfire-prone areas' 2009 to be BAL 19 for proposed Lot 1101 and BAL 12.5 for proposed Lots 1102-1104.

In accordance with section 3.5 of AS3959 the eastern and southern elevations of the proposed dwelling home within Lot 1101 can be downgraded to BAL 12.5 due to shielding.

The proposed sales and information pod has a Class 6 classification under the National Construction Code (NCC). The NCC does not provide for any bush fire specific performance requirements for Class 5 to 8 structures and as such Australian Standard 3959 'Construction of buildings in bushfire-prone areas' 2009 does not apply as a set of 'deemed to satisfy' provisions.

In relation to Class 5 to 8 structures PBP 2006 states:

*The general fire safety construction provisions are taken as acceptable solutions, but the aim and objectives of PBP apply in relation to other matters such as access, water and services, emergency planning and landscaping / vegetation management.*

*In circumstances where the aim and objectives of PBP (section 1.1) are not met, then the construction requirements for bush fire protection will need to be considered on a **case-by-case basis**.*

Suitable access, water supply and services and landscaping / vegetation management have been addressed with the residential subdivision component of this proposal. We have therefore recommended an ember upgrade package for the proposed sales and information pod to mitigate the threat of bushfires.

## 9.0 Recommendations

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The following recommendations are provided as the minimum necessary for compliance with Planning for Bush Fire Protection – 2006. Additional recommendations are provided to supplement these minimum requirements where considered necessary.

### Asset Protection Zones

1. That all grounds not built upon within the proposed allotments be maintained as an Asset Protection Zone as detailed in the NSW Rural Fire Service's document 'Standards for Asset Protection Zones' and Appendix 2 of Planning for Bush Fire Protection 2006.

### Water Supply

2. That the new hydrant sizing, spacing and pressures must comply with AS2419.1 – 2005.

### Construction

#### **Proposed Lot 1101:**

3. That roofing and new construction facing north and west shall comply with section 6 (BAL 19) Australian Standard AS3959-2009 "Construction of buildings in bush fire-prone areas" and section A3.7 Addendum Appendix 3 of "Planning for Bush Fire Protection".
4. That new construction facing east and south shall comply with section 5 (BAL 12.5) Australian Standard AS3959-2009 "Construction of buildings in bush fire-prone areas" and section A3.7 Addendum Appendix 3 of "Planning for Bush Fire Protection".

#### **Proposed Lot 1102-1104:**

5. That new construction shall comply with section 5 (BAL 12.5) Australian Standard AS3959-2009 "Construction of buildings in bush fire-prone areas" and section A3.7 Addendum Appendix 3 of "Planning for Bush Fire Protection".

#### **Sales and information pod:**

6. The sales and information pod is required to be upgraded to improve ember protection. This is to be achieved by enclosing all openings or covering openings with a non-corrosive metal screen mesh with a maximum aperture of 2mm. Where applicable, this includes openable windows, vents, weepholes and eaves. External doors are to be fitted with draft excluders.

## Services

7. That electricity and gas are to comply with section 4.1.3 of Planning for Bush Fire Protection 2006. The following are the requirements for the relevant services.

### Electricity:

- 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 accordance with the specifications in 'Vegetation Safety Clearances' issued by Energy Australia (NS179, April 2002).

### Gas:

- Reticulated or bottled gas is installed and maintained in accordance with AS 1596 and the requirements of relevant authorities.
- Metal piping is to be used.
- All fixed gas cylinders are kept clear of all flammable materials to a distance of 10 metres and shielded on the hazard side of the installation.
- If gas cylinders need to be kept close to the building, the release valves are directed away from the building and at least 2 metres away from any combustible material, so that they do not act as a catalyst to combustion. Connections to and from gas cylinders are metal.
- Polymer sheathed flexible gas supply lines to gas meters adjacent to buildings are not used.

## 10.0 Conclusion

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The development proposal relates to the establishment and operation of a temporary exhibition village that comprises a sales and information pod, associated car park and landscaping at 16 Chapman Street, Werrington.

The proposal also involves a subdivision of Proposed Lot 1068 in DA19/0704 to create four (4) residential allotments and the construction of a new dwelling home within each newly created allotment.

Given that the property is deemed bushfire prone under Penrith City Council's Bushfire Prone Land Map any development would need to meet the requirements of Planning for Bush Fire Protection 2006. 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 vegetation identified as being the hazard is within the proposed northern (E2 Environmental Conservation) residue lot to the northwest and proposed Central Park to the south and west.

The minimum required Asset Protection Zones were determined from Table A2.4 of Planning for Bush Fire Protection 2006. The subject development exceeds the minimum required Asset Protection Zones under PBP.

The highest Bushfire Attack Level to the proposed dwelling homes were determined from Table 2.4.2 of AS3959 'Construction of buildings in bushfire-prone areas' 2009 to be BAL 19 for proposed Lot 1101 and BAL 12.5 for proposed Lots 1102-1104.

In accordance with section 3.5 of AS3959 the eastern and southern elevations of the proposed dwelling home within Lot 1101 can be downgraded to BAL 12.5 due to shielding.

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.

Prepared by  
Building Code & Bushfire Hazard Solutions



**Stuart McMonnies**

Manager Bushfire Section

G. D. Design in Bushfire Prone Areas.

Certificate IV Fire Technology

Fire Protection Association of Australia BPAD – L3 Accredited Practitioner

Certification number – BPAD9400





## 11.0 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
- e) 'Penrith City Council's Bushfire Prone Land Map'
- f) 'South Werrington Urban Village' under the Penrith Development Control Plan 2014
- g) Vegetation Management Plan has been prepared by Horticultural Management Services (dated 14<sup>th</sup> March 2016)
- h) 'Subdivision Plan of Proposed Lot 1068 in DA19\_0704 At 16 Chapman Street, Werrington' (dwg no 80219053-003-1C-SK001, rev 1, dated 12/02/2020) prepared by Cardno
- i) Central Reserve – Landscape Masterplan prepared by Place Design Group (dated October 2019)
- j) Acknowledgements to:
  - NSW Department of Lands – SIXMaps
  - Street-directory.com.au
  - Nearmap
  - Geoscience Australia

### Attachments

Attachment 01: Section 4.14 Certificate



# Building Code & Bushfire Hazard Solutions

(Pty. Limited) ABN 19 057 337 774  
PO Box 124, Berowra NSW 2081  
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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:	Construction of four dwellings (only)
PLAN REFERENCE: (relied upon in report preparation)	Subdivision Plan of Proposed Lot 1068 in DA19_0704 At 16 Chapman Street, Werrington (dwg no 80219053-003-1C-SK001, rev 1, dated 12/02/2020) prepared by Cardno
BAL RATING:	BAL 19 / BAL 12.5 <small>(If the BAL rating is FZ the application is to be referred to NSW RFS for assessment)</small>
DOES THE PROPOSAL RELY ON ALTERNATE SOLUTIONS:	YES <input checked="" type="radio"/> NO <input type="radio"/> <small>(Circle the relevant response)</small> <small>(If YES the application is to be referred to NSW RFS for assessment)</small>
BUSHFIRE ASSESSMENT REPORT REFERENCE:	191311C
REPORT DATE:	18th February 2020
CERTIFICATION NO/ACCREDITED SCHEME	BPAD9400

I Stuart McMonnies 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*:

- That I am a person recognised by the *NSW Rural Fire Service* as a qualified consultant in bushfire risk assessment; and
- 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 Bushfire Protection 2006*.

Signature:  Date: 18<sup>th</sup> February 2020

