

## Bushfire Management Plan Coversheet

This Coversheet and accompanying Bushfire Management Plan has been prepared and issued by a person accredited by Fire Protection Association Australia under the Bushfire Planning and Design (BPAD) Accreditation Scheme.

### Bushfire Management Plan and Site Details

**Site Address / Plan Reference:** Lots 12 and 13 Griffiths Road, Lots 18, 19 and 20 Vincent Road, and Lots 9525, 9526 and 9528 Viola Approach, Sinagra

**Suburb:** Sinagra

**State:** WA

**P/code:** 6065

**Local government area:** City of Wanneroo

**Description of the planning proposal:** Residential Subdivision

**BMP Plan / Reference Number:** BNU17316.01

**Version:** 0

**Date of Issue:** 25/08/2017

**Client / Business Name:** Benara Nurseries

Reason for referral to DFES	Yes	No
Has the BAL been calculated by a method other than method 1 as outlined in AS3959 (tick no if AS3959 method 1 has been used to calculate the BAL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Have any of the bushfire protection criteria elements been addressed through the use of a performance principle (tick no if only acceptable solutions have been used to address all of the BPC elements)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Is the proposal any of the following special development types (see SPP 3.7 for definitions)?</b>		
Unavoidable development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Strategic planning proposal (including rezoning applications)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Minor development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
High risk land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vulnerable land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If the development is a special development type as listed above, explain why the proposal is considered to be one of the above listed classifications (E.g. considered vulnerable land-use as the development is for accommodation of the elderly, etc.)?

**Note:** The decision maker (e.g. local government or the WAPC) should only refer the proposal to DFES for comment if one (or more) of the above answers are ticked "Yes".

### BPAD Accredited Practitioner Details and Declaration

Name	Accreditation Level	Accreditation No.	Accreditation Expiry
Linden Wears	Level 2	BPAD19809	31/08/2017
Company		Contact No.	
Strategen Environmental		9380 3100	

I declare that the information provided within this bushfire management plan is to the best of my knowledge true and correct

Signature of Practitioner



Date 25/08/2017



# Bushfire Management Plan

## Structure Plan Amendment: East Wanneroo Cell 4 (Sinagra)

Prepared for  
Benara Nurseries Pty Ltd  
by Strategen

August 2017



# Bushfire Management Plan

## Structure Plan Amendment: East Wanneroo Cell 4 (Sinagra)

Strategen is a trading name of  
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August 2017



## ***Limitations***

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Within the limitations imposed by the scope of services, the preparation of this report has been undertaken and performed in a professional manner, in accordance with generally accepted environmental consulting practices. No other warranty, whether express or implied, is made.

### **Client: Benara Nurseries Pty Ltd**

Report Version	Revision No.	Purpose	Strategen author/reviewer	Submitted to Client	
				Form	Date
Draft Report	Rev A	For review by client	C Turner / Z Cockerill (BPAD37803)	Electronic (email)	22/08/2017
<b>Final Report</b>	<b>Rev 0</b>	<b>For submission</b>	<b>C Turner / L Wears (BPAD19809)</b>	<b>Electronic (email)</b>	<b>28/08/2017</b>

Filename: BNU17316\_01 R001 Rev 0 - 28 August 2017

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# 1. Introduction

## 1.1 Background

Benara Nurseries (the proponent) is proposing a Structure Plan amendment for their landholding south of Vincent Road, Sinagra (hereon referred to as the project area). The Structure Plan proposes to create approximately 650 residential lots ranging in size from 260 m<sup>2</sup>–1007 m<sup>2</sup>, as well as two Public Open Space (POS) areas (Figure 1). The Structure Plan amendment relates to Cell 4 of the existing East Wanneroo (Sinagra) Structure Plan and proposes to increase base density code to R25 and modify road patterns.

Parts of the project area are designated as bushfire prone on the *WA Map of Bush Fire Prone Areas* (DFES 2017). As a result, Strategen has prepared this Bushfire Management Plan (BMP) to address the following information requirements triggered by the proposed Structure Plan amendment under *State Planning Policy 3.7 Planning in Bushfire Prone Areas* (SPP 3.7; WAPC 2015), namely Policy Measure 6.3:

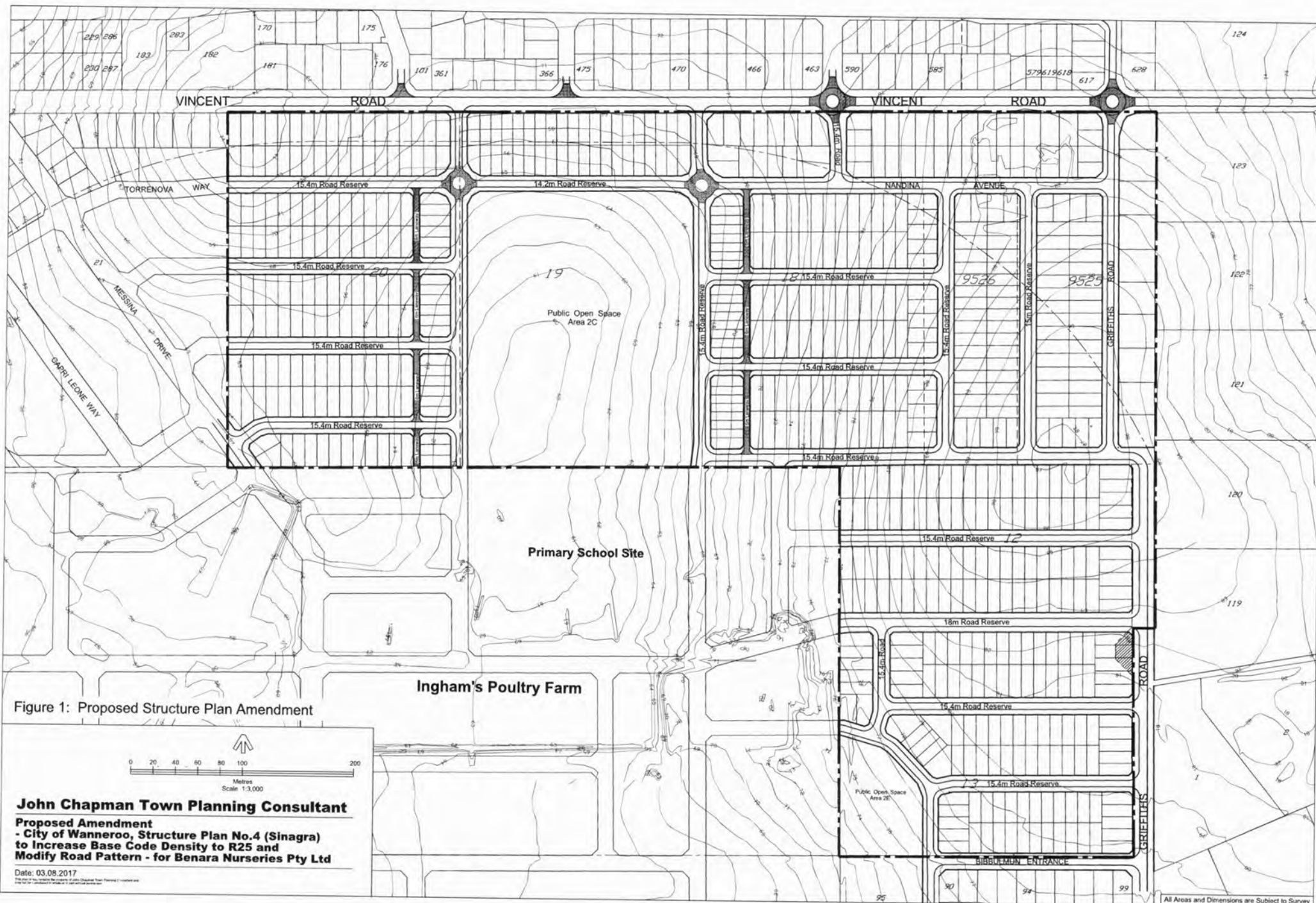
- where the lot layout of the proposal is known, a BAL Contour Map to determine the indicative acceptable BAL ratings across the subject site, in accordance with *Guidelines for Planning in Bushfire Prone Areas* (the Guidelines; WAPC 2017) – refer to Section 2.3 and Figure 4
- identification of any bushfire hazard issues arising from the BAL contour map – refer to Section 2.4
- clear demonstration that compliance with the bushfire protection criteria in the Guidelines can be achieved in subsequent planning stages – refer to Section 4 and Table 4.

This BMP has been prepared in accordance with the Guidelines and addresses the above requirements to satisfy SPP 3.7.

## 1.2 Purpose of the BMP

The purpose of this BMP is to provide guidance on how to plan for and manage the bushfire risk to future life and property assets of the project area through incorporation of a range of bushfire management measures into early planning design and future construction. The BMP outlines how future on-site assets can be protected during the summer months when the threat from bushfire is at its peak. This is particularly relevant when existing fire appliances in the area may be unable to offer an immediate emergency suppression response; therefore, development planning and design should aim to provide mitigation strategies that protect future life and property from bushfire as a priority.

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## **2. Spatial consideration of bushfire threat**

### **2.1 Existing site characteristics**

#### **2.1.1 Location**

The project area comprises Lots 12 and 13 Griffiths Road, Lots 18, 19 and 20 Vincent Road, and Lots 9525, 9526 and 9528 Viola Approach, Sinagra in the City of Wanneroo, which form part of the East Wanneroo Cell 4 (Sinagra) Structure Plan. The project area is bound by the following, as depicted in Figure 2:

- Vincent Road and residential properties to the north
- residential properties and vacant land zoned 'Urban Deferred' under the MRS to the west
- Ingham's Poultry Farm (Lot 1665) and bushland (Lot 9000) zoned 'Urban Deferred' under the MRS, and existing residential development to the south
- rural residential properties to the east.

#### **2.1.2 Assets**

The northern portion of the project area is currently occupied by a managed olive tree plantation, while the south-eastern portion contains nursery infrastructure including a large shed, greenhouses and water tanks which are owned and operated by Benara Nurseries.

Development of the project area will significantly increase the critical life and property assets of the site by intensifying the number of inhabitants, visitors and built assets across the project area.

There are no significant environmental values contained on-site as a result of the existing land use.

#### **2.1.3 Access**

The project area is accessible via four existing roads, including:

- Vincent Road to the north
- Griffiths Road and Bibbulmun Entrance to the south
- Torrenova Way to the west.

In addition, the project area is currently traversed via a network of compacted dirt roads and firebreaks.

#### **2.1.4 Water and power supply**

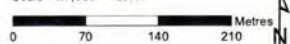
Reticulated water supply and underground power supply is available to the project area.





**Figure 2: Site overview**

Scale 1:7,000 at A4



Coordinate System: GDA 1994 MGA Zone 50  
Note that positional errors may occur in some areas  
Date: 21/08/2017

Author: JCrute

Source:

**Legend**

- Project site
- Cadastre



## 2.2 Existing fire environment

### 2.2.1 Vegetation class

Pre-development vegetation class has been assessed in accordance with *AS 3959–2009 Construction of Buildings in Bushfire-Prone Areas* (AS 3959; SA 2009). This involved on-ground verification of vegetation class within the project area and adjacent 150 m as per conditions at time of assessment on 20 July 2017. The pre-development vegetation class extent is depicted in Figure 3, along with the location and direction of site photographs to provide validation of the various vegetation classes and exclusions identified. Site photographs are contained in Appendix 1.

No classified vegetation occurs within the project area with all areas considered either non-vegetated (cleared hardstand, greenhouses and sheds), or managed (spaced olive trees with mowed grass understorey) in accordance with Clauses 2.2.3.2 (e) and (f) of AS3959 respectively.

Classified vegetation situated within 150 m of the project area consists of:

- Class B woodland within areas zoned 'Urban Deferred' west and south of the project area, and within 'Rural' zoned landholdings southeast of the project area
- Class G grassland within areas zoned 'Urban Deferred' west and south of the project area, and within 'Rural' zoned landholdings east of the project area.

As outlined in Section 2.1.3, adjacent future residential development areas (zoned 'Urban Deferred') are expected to be developed concurrently with the project area; therefore, classified vegetation west and south of the site is expected to be removed or managed to facilitate development of these areas. Notwithstanding this, temporary setbacks to this vegetation will be in place to ensure development is not located in areas subject to a rating of BAL-40 or BAL-FZ, which will ensure that affected lots are temporarily quarantined until such a time that the bushfire hazard is removed. These management measures are further discussed in Section 3.

All other land within 150 m of the project area was identified to be excluded from classification under the following AS 3959 exclusion clauses:

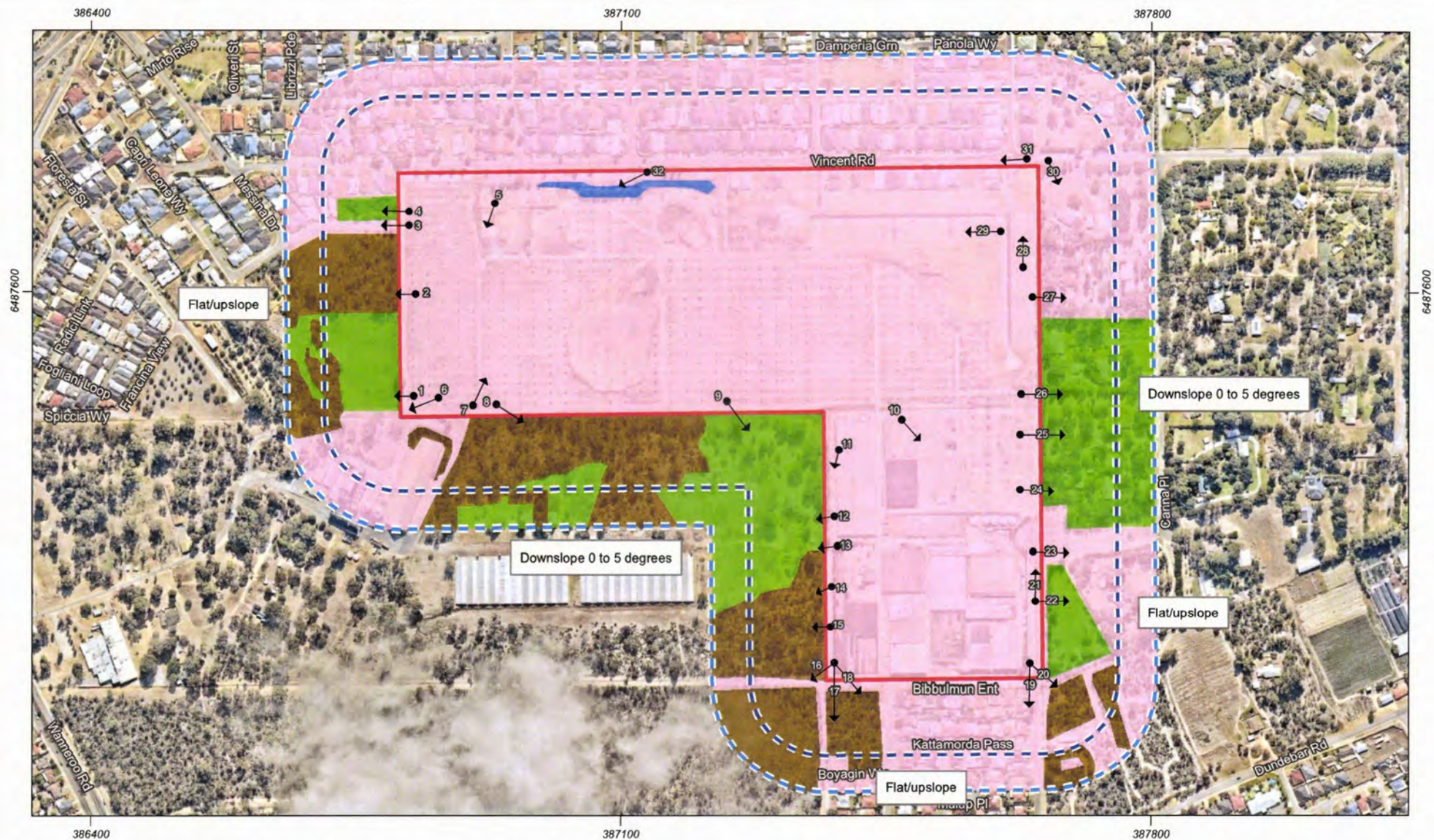
1. Clause 2.2.3.2 (e) non-vegetated areas including, constructed roads and pathways (i.e. sealed surfaces) and buildings.
2. Clause 2.2.3.2 (f) low threat managed vegetation including road verges, cleared vacant managed land and low threat landscaped areas.

### 2.2.2 Effective slope

The slope under classified vegetation to the southeast and west of the project area is considered flat or upslope relative to the proposed lots. The slope beneath vegetation to the south of the project area within Lot 1665 (Ingham's Poultry Farm) and Lot 9000, and to the east of the project area within rural lots, is down-slope at an angle of >0–5 degrees relative to the proposed lots. The effective slope is annotated for these areas on Figure 3.

The information above summarises the slope characteristics under the classified vegetation to inform the BAL assessment outlined in Section 2.3 and depicted in Figure 4.





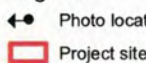
**Figure 3: Pre-development vegetation classification and effective slope**

Scale 1:7,000 at A4  
 0 70 140 210 Metres

Coordinate System: GDA 1994 MGA Zone 50  
 Note that positional errors may occur in some areas  
 Date: 21/08/2017

Author: JCrute  
 Source:

**Legend**



**Assessment area**  
 100m  
 150m

**Classified vegetation**  
 Class B Woodland  
 Class G Grassland

Excluded under clause (b)  
 Excluded under clause (e) and (f)

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## 2.3 BAL contour assessment

Since classified vegetation has been confirmed to occur within 100 m of the project area, a BAL assessment and application of AS 3959 is required to inform future building location, design and construction requirements. A Method 1 BAL assessment for the site has been undertaken and is outlined in the following subsections, with the resulting BAL contours depicted in Figure 4.

### 2.3.1 Fire Danger Index

A blanket rating of FDI 80 is adopted for Western Australian environments, as outlined in AS 3959 and endorsed by Australasian Fire and Emergency Service Authorities Council.

### 2.3.2 Vegetation class

Pre-and post-development vegetation classes and exclusions are discussed in Section 2.2.1. BAL contours are based on the extent of classified vegetation remaining after the development is complete, which under a conservative scenario may consist of Class B woodland and Class G grassland retained within surrounding 'Urban Deferred' areas to the west and south and within surrounding 'Rural' areas to the east.

As outlined previously, classified vegetation within 'Urban Deferred' areas west and south of the site is expected to be removed or managed at the time of development of the project area. However, BAL contours determined through the BAL assessment in this BMP are based on the current 'worst case' scenario including all existing classified vegetation external to the site.

### 2.3.3 Effective slope

Effective slope is described in Section 2.2.2 (Figure 3) and consists of:

- slope under classified vegetation to the southeast and west of the project area is considered flat or up-slope relative to the proposed lots
- slope beneath vegetation to the south of the project area within Lot 1665 (Ingham's Poultry Farm) and Lot 9000, and within rural lots to the east of the project area, is down-slope at an angle of >0–5 degrees relative to the proposed lots.

### 2.3.4 Distance between proposed development areas and the classified vegetation

The minimum required separation distances between proposed development and the post-development classified vegetation to achieve the necessary compliance with a BAL–29 rating or lower, are outlined below in Table 1.

Table 1. Minimum required separation distances

AS3959 vegetation class	Effective slope	Required separation distances
Class B woodland	Up-slope/flat	14 m
	Down-slope >0 to 5 degrees	17 m
Class G grassland	Up-slope/flat	8 m
	Down-slope >0 to 5 degrees	9 m

These separation distances will form the Asset Protection Zones (APZs) for the site and can be achieved through a combination of managed POS, perimeter roads and minor building setbacks where required. Temporary APZs will be applied where necessary to ensure classified vegetation to the west and south of the site does not result in lots being exposed to BAL–40 or above. Temporary APZs will effectively result in the quarantining of lots until such a time that the bushfire hazard is removed or managed to a low threat standard in accordance with AS3959.

### 2.3.5 BAL calculation

A Method 1 BAL calculation has been undertaken to determine BAL contours for the project area in accordance with AS 3959 methodology. The assessed BALs give an indication of the level of bushfire attack (i.e. the radiant heat flux) that may be received by proposed lots and subsequently inform the standard of building construction required for proposed buildings to potentially withstand such impacts. Land located greater than 100 m from classified vegetation maintains a rating of BAL-Low, where there is insufficient risk to warrant an increase in the building construction standard, as adopted by Method 1 BAL assessment procedure.

BAL contour assessment results are outlined in Table 2 and depicted in Figure 4.

Table 2: Method 1 BAL calculation

Vegetation class	Effective slope	BAL contours (separation distance)	BAL rating	Comment
Class B woodland	Flat land (0 degrees)	<10 m	BAL-FZ	No residential development is proposed in this area
		10-<14 m	BAL-40	No residential development is proposed in this area
		14-<20 m	BAL-29	No residential development is proposed in this area
		20-<29 m	BAL-19	Residential development is proposed in this area
		29-<100 m	BAL-12.5	Residential development is proposed in this area
		<13 m	BAL-FZ	Residential development is proposed in this area; however, lots will be quarantined and temporary APZs will be provided until hazard removed
Class B woodland	Down-slope 0-5 degrees	13-<17 m	BAL-40	Residential development is proposed in this area; however, lots will be quarantined and temporary APZs will be provided until hazard removed
		17-<25 m	BAL-29	Residential development is proposed in this area; however, lots will be quarantined and temporary APZs will be provided until hazard removed
		25-<35 m	BAL-19	Residential development is proposed in this area; however, lots will be quarantined and temporary APZs will be provided until hazard removed
		35-<100 m	BAL-12.5	Residential development is proposed in this area
		<6 m	BAL-FZ	No residential development is proposed in this area
		6-<8 m	BAL-40	No residential development is proposed in this area
Class G grassland	Flat land (0 degrees)	8-<12 m	BAL-29	Residential development is proposed in this area; however, hazard is considered temporary and may be removed prior to subdivision
		12-17 m	BAL-19	Residential development is proposed in this area; however, hazard is considered temporary and may be removed prior to subdivision
		17-<50 m	BAL-12.5	Residential development is proposed in this area
		<7 m	BAL-FZ	No residential development is proposed in this area
Class G grassland	Down-slope 0-5 degrees	7-<9 m	BAL-40	No residential development is proposed in this area
		9-<14 m	BAL-29	Residential development is proposed in this area
		14-<20 m	BAL-19	Residential development is proposed in this area
		20-<50 m	BAL-12.5	Residential development is proposed in this area



## 2.4 Identification of bushfire hazard issues

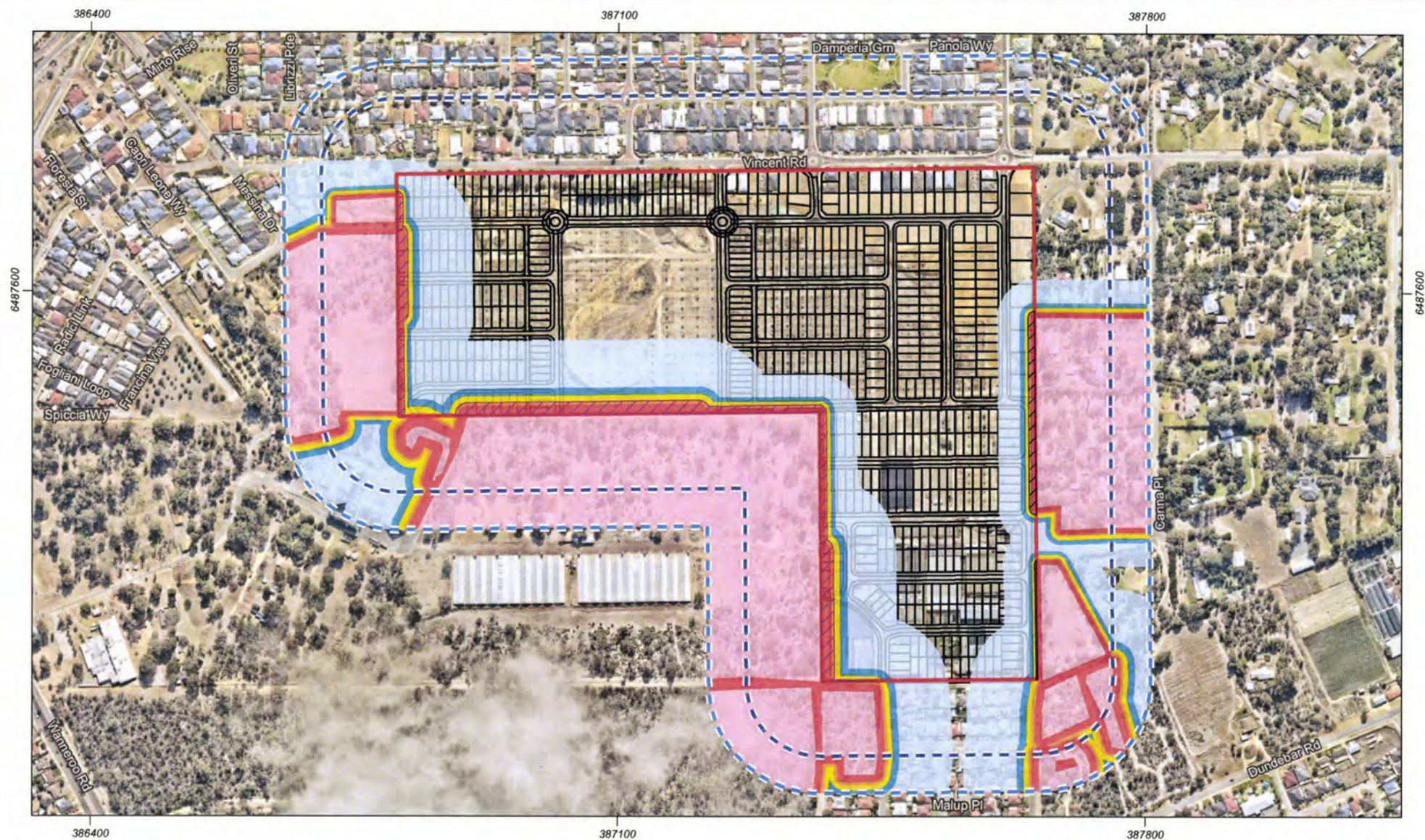
Considerable urban residential development has been constructed to the north of the project area which has resulted in removal of much of the pre-development vegetation extent that would have originally occupied the locality.

Due to the presence of intact grassland and woodland vegetation to the south of the site, there is a potential bushfire risk from a southerly direction. However, this risk is likely to be temporary and bushfire fuels are expected to be reduced and/or managed to facilitate future residential development.

Grass fuels within rural residential properties to the east of the site pose a permanent potential bushfire threat to the project area. However, given the presence of Canna Place east of the site and the apparent management of many of these rural properties in the broader area, the expected fire run adjacent to the site would be approximately 150 m within unmanaged rural lots immediately east of the site. Therefore, the project area is not considered to be exposed to any significant landscape scale bushfire risk.

Based on the above information, Strategen recommends that subdivision design incorporate suitable levels of defensible space and access provisions to defend against potential localised bushfires. Management measures for the development are outlined in Section 3 and summarised in Section 5. As discussed above, there is no significant landscape scale bushfire risk in proximity to the project area. Following provision of these development design measures, Strategen considers the bushfire risk and associated hazards are readily manageable in accordance with standard Guideline acceptable solutions.





**Figure 4: Bushfire Management Plan**

Scale 1:7,000 at A4

0 70 140 210 Metres

Coordinate System: GDA 1994 MGA Zone 50  
 Note that positional errors may occur in some areas  
 Date: 22/08/2017  
 Author: JCrute  
 Source:

Path: Q:\Consult\2017\BNU\BNU17316\ArcMap\_documents\BNU17316\_G004\_RevB.mxd

#### Legend

— Subdivision layout  
 [Red Outline] Project site

#### Assessment area

[Blue Dashed Line] 100m  
 [Blue Dashed Line] 150m

[Pink Fill] Classified vegetation  
 [Hatched Box] Permanent APZ  
 [Hatched Box] Temporary APZ

#### BAL contours

[Red Fill] BAL FZ  
 [Orange Fill] BAL 40  
 [Yellow Fill] BAL 29  
 [Blue Fill] BAL 19  
 [Light Blue Fill] BAL 12.5



### 3. Bushfire management measures

This section outlines the bushfire management measures that will be adopted to ensure Guideline compliance and a manageable level of bushfire risk is achieved for proposed development within the project area. The management actions recommended are directly referred to in the bushfire compliance table outlined in Table 5 to assist with implementation, enforcement and auditing of all works.

#### 3.1 Asset Protection Zone (APZ)

Method 1 BAL assessment has confirmed BAL-29 or lower can be achieved for all proposed development within the project area in accordance with acceptable solution A1.1 of the Guidelines through the provision of temporary setbacks to vegetation within future residential areas and permanent setbacks to grassland within 'Rural' landholdings east of the site. The BAL ratings assessed for proposed development rely on the separation distances being maintained between proposed dwellings and the surrounding classified vegetation extent until such a time that the hazard is removed or managed in accordance with AS3959.

These separation distances make up the APZs for the site in accordance with acceptable solution A2.1 of the Guidelines and comprise a combination of:

- perimeter roads
- low threat landscaped areas and turf areas including the two POS areas
- minor building setbacks where required for relevant lots to ensure the full extent of the APZ is established and building construction is avoided in areas of BAL-FZ and BAL-40 (building setbacks will be required for several lots along the north-eastern extent of the project area to ensure BAL-29 or lower is achieved).

##### Management Action BMP 1a

Maintain the APZ road reserves (including road verges) in a low fuel state through slashing of understorey grasses and weeds to a height of less than 100 mm on a regular and ongoing basis. This relates to all proposed roads, as well as the current management regime of existing roads.

##### Management Action BMP 1b

Maintain APZ POS areas on a regular and ongoing basis at a fuel load less than 2 t/ha and at a density consistent with Clause 2.2.3.2 (f) of AS 3959-2009.

##### Management Action BMP 1c

Implement the necessary building setbacks where required for relevant lots to ensure the full extent of the APZ is established and building construction is avoided in areas of BAL-FZ and BAL-40.

##### Management Action BMP 1d

In the event that classified vegetation has not been cleared or managed (in accordance with Clause 2.2.3.2 (f) of AS959) within lots to the west and south of the site at the time of development of the project area, provide (and maintain to APZ standard) temporary setbacks to quarantine affected lots and ensure development is not subject to a rating of BAL-40 or higher.

## 3.2 Fuel management

The BAL contours assessed in this BMP rely on areas of low threat, managed vegetation (excluded from classification) being maintained on a regular and ongoing basis all year round.

### *Public open space areas*

Landscaping plans are yet to be developed for the two POS areas within the project, however POS areas will be consistent with a low fuel state and will be managed on a regular and ongoing basis at a fuel load less than 2 t/ha. A turfed, managed oval is proposed for the larger, central POS area. Consequently, the post-development vegetation within the POS areas has been classified as low threat in accordance with Clauses 2.2.3.2 (e) and (f) of AS 3959–2009. Management of the POS areas will be undertaken by the proponent for the maintenance period, after which time CoW take on the responsibility.

#### Management Action BMP 2a

Maintain POS areas on a regular and ongoing basis at a fuel load less than 2 t/ha and at a density consistent with Clause 2.2.3.2 (f) of AS 3959–2009.

#### Management Action BMP 2b

Maintain all cleared vacant land in a low fuel state through slashing of grasses and weeds to a height of less than 100 mm on a regular basis until such time that the land is developed on (developer prior to lot sale, future landowner thereafter).

#### Management Action BMP 2c

Maintain road reserves in a low fuel state through slashing of grasses and weeds to a height of less than 100 mm on a regular and ongoing basis. Management of the internal road reserves will be undertaken by the proponent for the maintenance period, after which time the CoW take on the responsibility.

#### Management Action BMP 2d

Ensure compliance with the CoW firebreak notice. Firebreaks are to be maintained from 15 November until April the following year. For land greater than 2000m<sup>2</sup>, a 3 m wide and 3 m high firebreak is to be maintained immediately within the property boundary with vegetation no greater than 20 mm in height over the entire area of the firebreak.

## 3.3 Building construction standards and BAL compliance

BAL contours have been derived for the project area through AS 3959 Method 1 BAL assessment, as outlined in Table 2 and Figure 4. These indicative BALs rely on Management Actions BMP 1a, 1b, 1c, 1d, 2a, 2b, 2c and 2d being implemented. However, reassessment of the BAL should be undertaken to confirm individual lot BAL ratings in order to properly inform the building design and construction process.

#### Management Action BMP 3a

Undertake a BAL compliance check post-completion of all subdivisional works (accredited bushfire practitioner on behalf of developer). This will enable BAL certificates to be prepared prior to lot sale and included up-front as part of the contract of sale for individual lots to ensure future lot purchasers have confirmation of the BAL rating as part of the lot sale process. The BAL certificates would be valid for a 12-month period for use to support individual lot building permit applications. This BAL compliance procedure is consistent with Section 4.2 of the Guidelines.

#### Management Action BMP 3b

Construct buildings in accordance with AS 3959 and the assessed BAL, as outlined through BAL compliance or reassessment at the building permit stage (future landowners).



### 3.4 Vehicular access

The proposed vehicular access network will provide through access to the existing surrounding public road network via Vincent Road to the north, Griffiths Road to the south and Torrenova Way to the west. This will ensure a minimum of two different access routes are provided at all times; thereby meeting compliance with acceptable solution A3.1.

The proposed internal road system provides an interconnected network which will provide multiple connections to future roads within residential development areas to the west and south of the site. All proposed public roads will be constructed to meet technical requirements of the Guidelines (refer to Table 3) in accordance with acceptable solution A3.2. In the event that development of the project area occurs prior to development to the west and south, temporary internal roads (emergency access ways) will ensure that no 'dead ends' are created, or alternatively, temporary cul-de-sacs will be provided which are constructed in accordance with the technical requirements Guidelines (refer to Table 3); thereby meeting compliance with acceptable solutions of Performance Principle P3.

No battle-axe blocks, private driveways longer than 50 m, fire service access routes, or residential lots greater than 0.5 ha (with the exception of two managed POS areas with perimeter roads) are proposed or required as part of this development. Therefore, acceptable solutions A3.4, A3.5, A3.7 and A3.8 are not applicable in this instance.

Table 3: Vehicular access technical requirements

Technical requirement	Public road	Cul-de-sac	Emergency access way
Minimum trafficable surface (m)	6*	6	6*
Horizontal distance (m)	6	6	6
Vertical clearance (m)	4.5	N/A	4.5
Maximum grade <50 m	1 in 10	1 in 10	1 in 10
Minimum weight capacity (t)	15	15	15
Maximum crossfall	1 in 33	1 in 33	1 in 33
Curves minimum inner radius	8.5	8.5	8.5

\*Refer to E3.2 Public roads: Trafficable surface

Source: WAPC 2017

#### Management Action BMP 4a

Construct all new permanent and temporary internal roads (emergency access ways) and cul-de-sac in accordance with subdivision approval and technical requirements of the Guidelines (developer).

### 3.5 Reticulated water supply

All proposed lots will be provided a reticulated water supply through extension of existing services from adjacent urban development. The reticulated system will ensure an all year-round supply of water is provided for each lot to meet minimum domestic and emergency water supply requirements to comply with Guideline acceptable solution A4.1.

A network of hydrants will also be provided along the internal road network at locations which meet relevant water supply authority and DFES requirements, in particular the Water Corporation Design Standard DS 63 'Water Reticulation Standard Design and Construction Requirements for Water Reticulation Systems up to DN250'. This standard will guide construction of the internal reticulated water supply system and fire hydrant network, including spacing and positioning of fire hydrants so that the maximum distance between a hydrant and the rear of a building envelope (or in the absence of a building envelope, the rear of the lot) shall be 120 m and the hydrants shall be no more than 200 m apart.

#### Management Action BMP 5a

Provide a reticulated water supply for all proposed residential lots, as well as a network of hydrants, which meet relevant water authority, DFES and any CoW technical requirements (developer).

### 3.6 Additional measures

Strategen makes the following additional recommendations to inform ongoing stages of development:

#### Management Action BMP 6a

Where relevant, a notification pursuant to Section 165 of the *Planning and Development Act 2005* is to be placed on the certificates of title of proposed lots with a BAL rating of 12.5 or above, advising of the existence of a hazard or other factor (relevant authority). The notification is to state as follows:

*This land is subject to a Bushfire Management Plan. Additional planning and building requirements may apply to development on this land.*

#### Management Action BMP 6b

All parties are to comply with the current CoW annual firebreak notice (Appendix 2).

#### Management Action BMP 6c

Reassessment of the BAL to inform individual building permit applications may be required at the discretion of the CoW or if any changes occur to proposed development design and/or vegetation class extent which may result in a different BAL rating being applied (developer prior to lot sale, future landowner thereafter).



## 4. Proposal compliance and justification

Proposed development within the project area is required to comply with SPP 3.7 under the following policy measures:

### 6.2 Strategic planning proposals, subdivision and development applications

- a) Strategic planning proposals, subdivision and development applications within designated bushfire prone areas relating to land that has or will have a Bushfire Hazard Level (BHL) above low and/or where a Bushfire Attack Level (BAL) rating above BAL-LOW apply, are to comply with these policy measures.
- b) Any strategic planning proposal, subdivision or development application in an area to which policy measure 6.2 a) applies, that has or will, on completion, have a moderate BHL and/or where BAL-12.5 to BAL-29 applies, may be considered for approval where it can be undertaken in accordance with policy measures 6.3, 6.4 or 6.5.
- c) This policy also applies where an area is not yet designated as a bushfire prone area but is proposed to be developed in a way that introduces a bushfire hazard, as outlined in the Guidelines.

### 6.3 Information to accompany strategic planning proposals

Any strategic planning proposals to which policy measure 6.3 applies is to be accompanied by the following information in accordance with the Guidelines:

- a) (i) the results of a BHL assessment determining the applicable hazard level(s) across the subject land, in accordance with the methodology set out in the Guidelines. BHL assessments should be prepared by an accredited Bushfire Planning Practitioner; or
- a) (ii) where the lot layout of the proposal is known, a BAL Contour Map to determine the indicative acceptable BAL ratings across the subject site, in accordance with the Guidelines. The BAL Contour Map should be prepared by an accredited Bushfire Planning Practitioner; and
- b) the identification of any bushfire hazard issues arising from the relevant assessment; and
- c) clear demonstration that compliance with the bushfire protection criteria in the Guidelines can be achieved in subsequent planning stages.

Implementation of this BMP is expected to meet the following objectives of SPP 3.7:

- 5.1 Avoid any increase in the threat of bushfire to people, property and infrastructure. The preservation of life and the management of bushfire impact are paramount.
- 5.2 Reduce vulnerability to bushfire through the identification and consideration of bushfire risks in decision-making at all stages of the planning and development process.
- 5.3 Ensure that higher order strategic planning documents, strategic planning proposals, subdivision and development applications consider bushfire protection requirements and include specified bushfire protection measures.
- 5.4 Achieve an appropriate balance between bushfire risk management measures and, biodiversity conservation values, environmental protection and biodiversity management and landscape amenity, with consideration of the potential impacts of climate change.

In response to the above requirements of SPP 3.7, the bushfire management measures, as outlined in Section 3, have been devised for the proposed development in accordance with acceptable solutions of the Guidelines to meet compliance with bushfire protection criteria. An 'acceptable solutions' assessment is provided in Table 4 to assess the proposed bushfire management measures against each bushfire protection criteria in accordance with the Guidelines and demonstrate that the measures proposed meet the intent of each element of the bushfire protection criteria.

Table 4: Acceptable solutions assessment against bushfire protection criteria

Bushfire protection criteria	Intent	Acceptable solutions	Proposed bushfire management measures	Compliance statement
<b>Element 1: Location</b>	To ensure that strategic planning proposals, subdivision and development applications are located in areas with the least possible risk of bushfire to facilitate the protection of people, property and infrastructure.	<u>A1.1 Development location</u> The strategic planning proposal, subdivision and development application is located in an area that is or will, on completion, be subject to either a moderate or low bushfire hazard level, or BAL-29 or below.	Refer to Section 3.1, which demonstrates that all future development will avoid areas of BAL-FZ and BAL-40 and a rating of BAL-29 or lower can be achieved.	The measures proposed are considered to comply and meet the intent of Element 1 Location.
<b>Element 2: Siting and design of development</b>	To ensure that the siting and design of development minimises the level of bushfire impact.	<u>A2.1 Asset Protection Zone (APZ)</u> Every habitable building is surrounded by, and every proposed lot can achieve, an APZ depicted on submitted plans, which meets the following requirements: <ul style="list-style-type: none"> <li>Width: Measured from any external wall or supporting post or column of the proposed building, and of sufficient size to ensure the potential radiant heat impact of a bushfire does not exceed 29kW/m<sup>2</sup> (BAL-29) in all circumstances</li> <li>Location: the APZ should be contained solely within the boundaries of the lot on which the building is situated, except in instances where the neighbouring lot or lots will be managed in a low-fuel state on an ongoing basis, in perpetuity (see explanatory notes)</li> <li>Management: the APZ is managed in accordance with the requirements of 'Standards for Asset Protection Zones' (see Guidelines Schedule 1).</li> </ul>	Refer to Section 3.1, which demonstrates that all lots will be provided a suitably sized APZ to ensure a rating of BAL-29 or lower can be achieved.	The measures proposed are considered to comply and meet the intent of Element 2 Siting and design of development.
<b>Element 3: Vehicular access</b>	To ensure that the vehicular access serving a subdivision/development is available and safe during a bushfire event.	<u>A3.1 Two access routes</u> Two different vehicular access routes are provided, both of which connect to the public road network, provide safe access and egress to two different destinations and are available to all residents/the public at all times and under all weather conditions.  <u>A3.2 Public road</u> A public road is to meet the requirements in Table 4 Column 1 of the Guidelines.  <u>A3.3 Cul-de-sac (including a dead-end-road)</u> A cul-de-sac and/or a dead end road should be avoided in bushfire prone areas. Where no alternative exists (i.e. the lot layout already exists and/or will need to be demonstrated by the proponent), detailed requirements will need to be achieved as per Table 4 Column 2 of the Guidelines.	Refer to Section 3.4, which demonstrates that the proposed public access network will provide at least two different vehicular access routes for the proposed development at all times.  Refer to Section 3.4, which demonstrates that the proposed public access network will meet technical requirements of the Guidelines.  Refer to Section 3.4, which demonstrates any temporary proposed cul-de-sacs will meet technical requirements of the Guidelines.	The measures proposed are considered to comply and meet the intent of Element 3 Vehicular access.



Element 4: Water	To ensure that water is available to the subdivision, development or land use to enable people, property and infrastructure to be defended from bushfire.	<p><b>A3.4 Battle-axe</b> Battle-axe access legs should be avoided in bushfire prone areas. Where no alternative exists, (this will need to be demonstrated by the proponent) detailed requirements will need to be achieved as per Table 4 Column 3 of the Guidelines.</p> <p><b>A3.5 Private driveway longer than 50 m</b> A private driveway is to meet detailed requirements as per Table 4 Column 3 of the Guidelines.</p> <p><b>A3.6 Emergency access way</b> An access way that does not provide through access to a public road is to be avoided in bushfire prone areas. Where no alternative exists (this will need to be demonstrated by the proponent), an emergency access way is to be provided as an alternative link to a public road during emergencies. An emergency access way is to meet detailed requirements as per Table 4 Column 4 of the Guidelines.</p> <p><b>A3.7 Fire service access routes (perimeter roads)</b> Fire service access routes are to be established to provide access within and around the edge of the subdivision and related development to provide direct access to bushfire prone areas for fire fighters and link between public road networks for firefighting purposes. Fire service access routes are to meet detailed requirements as per Table 4 Column 5 of the Guidelines.</p> <p><b>A3.8 Firebreak width</b> Lots greater than 0.5 hectares must have an internal perimeter firebreak of a minimum width of three metres or to the level as prescribed in the local firebreak notice issued by the local government.</p>	<p>N/A No battle axes are proposed as part of the development.</p> <p>N/A No private driveways longer than 50 m are proposed as part of the development.</p> <p>Refer to Section 3.4, which demonstrates any temporary proposed emergency access way will meet technical requirements of the Guidelines.</p> <p>N/A No fire service access routes are required as part of the development.</p> <p>N/A No firebreaks are required as part of the development.</p>	The measures proposed are considered to comply and meet the intent of Element 4 Water.
		<p><b>A4.1 Reticulated areas</b> The subdivision, development or land use is provided with a reticulated water supply in accordance with the specifications of the relevant water supply authority and Department of Fire and Emergency Services.</p> <p><b>A4.2 Non-reticulated areas</b> Water tanks for firefighting purposes with a hydrant or standpipe are provided and meet detailed requirements (refer to the Guidelines for detailed requirements for non-reticulated areas).</p> <p><b>A4.3 Individual lots within non-reticulated areas</b> (only for use if creating 1 additional lot and cannot be applied cumulatively) Single lots above 500 square metres need a dedicated static water supply on the lot that has the effective capacity of 10 000 litres.</p>	<p>Refer to Section 3.5, which demonstrates that all proposed lots will be provided a reticulated water supply and network of hydrants in accordance with local water authority, CoW and DFES requirements.</p> <p>N/A The proposed development will not occur within a non-reticulated area.</p> <p>N/A The proposed development will not occur within a non-reticulated area.</p>	

## 5. Implementation and enforcement

Implementation of the BMP applies to the developer, prospective landowners and CoW to ensure bushfire management measures are adopted and implemented on an ongoing basis. A bushfire compliance table is provided in Table 5 to drive implementation of all bushfire management works associated with this BMP.

Table 5: Bushfire compliance table

Reference	Action	Timing	Responsibility
BMP 1a (refer to Section 3.1)	Maintain APZ reserves (including road verges) in a low fuel state	As per current maintenance regime	City of Wanneroo
BMP 1b (refer to Section 3.1)	Maintain APZ POS areas at a fuel load less than 2 t/ha and at a density consistent with Clause 2.2.3.2 (f) of AS 3959-2009	Ongoing all year round	Proponent during maintenance period, City of Wanneroo onwards
BMP 1c (refer to Section 3.1)	Where required, implement the necessary building setbacks for relevant lots	At building construction	Future landowners
BMP 1d (refer to Section 3.1)	Provide (and maintain to APZ standard) temporary setbacks to ensure development is not subject to a rating of BAL-40 or higher	Until such time that adjacent temporary hazards are removed	Proponent
BMP 2a (refer to Section 3.2)	Maintain POS areas at a fuel load less than 2 t/ha and at a density consistent with Clause 2.2.3.2 (f) of AS 3959-2009	Ongoing all year round	Proponent during maintenance period, City of Wanneroo onwards
BMP 2b (refer to Section 3.2)	Maintain cleared vacant land in a low fuel state	Ongoing all year round until such time that the land is developed on	Proponent prior to lot sale, landowner thereafter.
BMP 2c (refer to Section 3.2)	Maintain road reserves in a low fuel state	Ongoing all year round	Proponent during maintenance period (internal road network only), City of Wanneroo onwards (as per current maintenance regime for existing roads)
BMP 2d (refer to Section 3.2)	Ensure compliance with the CoW firebreak notice including firebreak maintenance where relevant	Ongoing all year round	Proponent prior to sale, landowner thereafter
BMP 3a (refer to Section 3.3)	Undertake BAL compliance check	Post-completion subdivisional works and prior to lot title	Accredited bushfire planning practitioner on behalf of the developer
BMP 3b (refer to Section 3.3)	Construct buildings in accordance with AS 3959 and the assessed BAL	At building construction	Future landowners
BMP 4a (refer to Section 3.4)	Construct all new internal roads and any temporary cul-de-sacs/EAWs in accordance with subdivision approval and technical requirements of the Guidelines	During subdivisional works	Proponent
BMP 5a (refer to Section 3.5)	Provide a reticulated water supply and network of hydrants in accordance with subdivision approval and water authority, DFES and City technical requirements	During subdivisional works	Proponent
BMP 6a (refer to Section 3.6)	Where relevant, place notification on the certificates of title for proposed lots with a BAL rating of 12.5 or above	At creation of title	Relevant authority



Reference	Action	Timing	Responsibility
BMP 6b (refer to Section 3.6)	Comply with the City of Wanneroo annual firebreak notice (refer to Appendix 2)	Ongoing all year round	All parties
BMP 6c (refer to Section 3.6)	Reassess BALs for individual lots	At the discretion of the City prior to building construction if development design or vegetation class extent is modified from that outlined in this BMP	Developer prior to lot sale, future landowners thereafter

## 5.1 Document review and update

This BMP will be updated as required in response to any significant changes in development design and/or the classified vegetation extent to ensure bushfire management responses for proposed development are consistent with on-ground conditions. The developer will be responsible for updating and revising the BMP until such time that the development is complete.

## 6. References

- Department of Fire and Emergency Services (DFES) 2017, *Map of Bush Fire Prone Areas*, [Online], Government of Western Australia, available from:  
<http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/Pages/default.aspx>, [5/04/2017].
- Standards Australia (SA) 2009, *Australian Standard AS 3959–2009 Construction of Buildings in Bushfire-prone Areas*, Standards Australia, Sydney.
- Western Australian Planning Commission (WAPC) 2015, *State Planning Policy 3.7 Planning in Bushfire-Prone Areas*, Western Australian Planning Commission, Perth.
- Western Australian Planning Commission (WAPC) 2017, *Guidelines for Planning in Bushfire-Prone Areas*, Western Australian Planning Commission, Perth.



## Appendix 1

### Site photographs

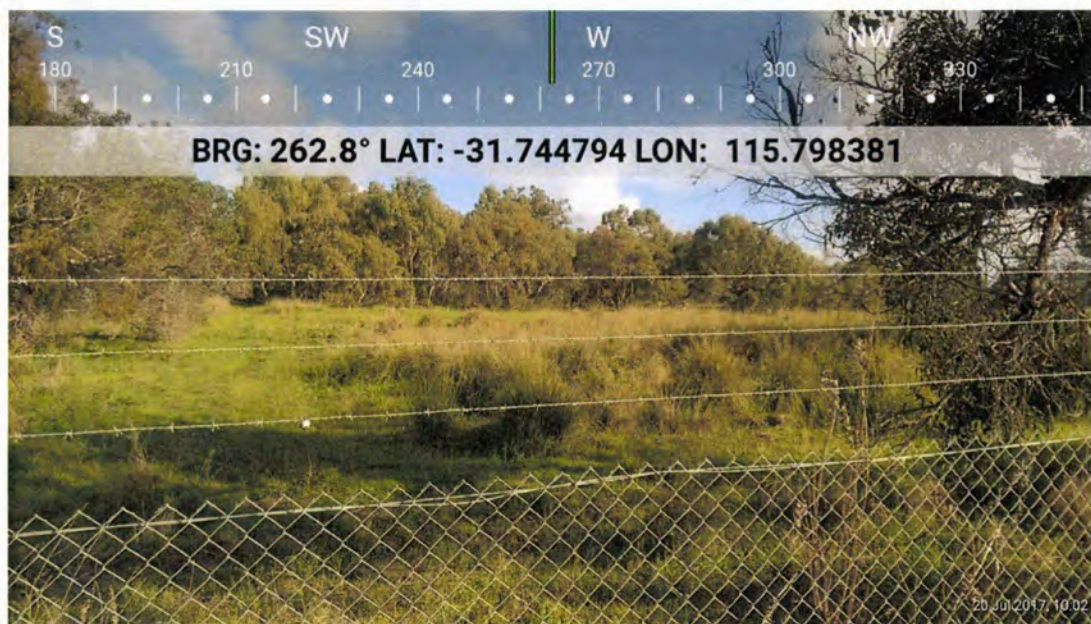


Photo Point 1: Class G grassland in foreground, Class B woodland in background, west of the project area



Photo Point 2: Class B woodland to the west of the project area





Photo Point 3: Area west of the project area excluded under Clause 2.2.3.2(e) of AS3959



Photo Point 4: Class G grassland to the west of the project area





Photo Point 5: Managed areas within the project area excluded under Clause 2.2.3.2(f) of AS3959. Some minor winter regrowth is present.

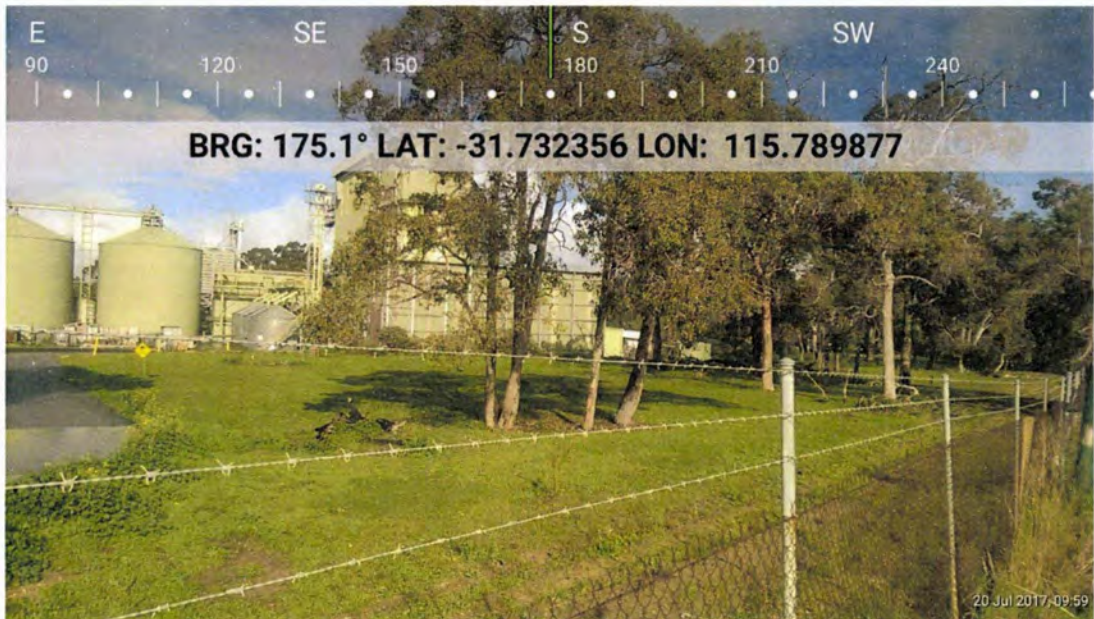


Photo Point 6: Managed areas excluded under Clause 2.2.3.2(f) of AS3959, to the south-west of the project area.





Photo Point 7: Excluded land under Clause 2.2.3.2 (f) of AS 3959 within the project area, existing firebreak is evident on right.



Photo Point 8: Class B woodland vegetation to the south of the project area



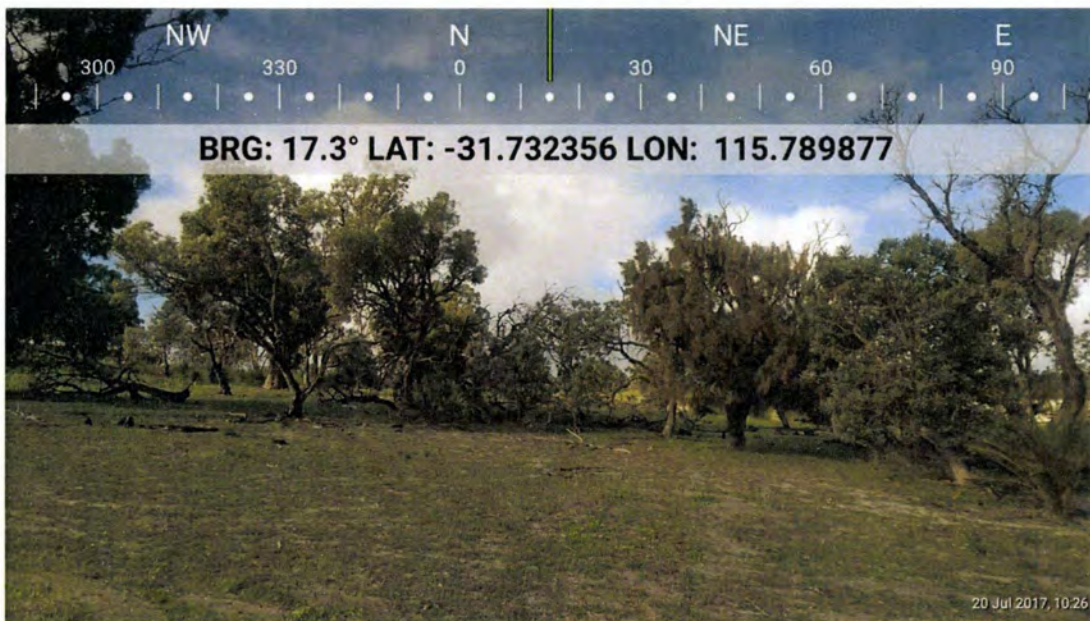


Photo Point 9: Class G grassland to the south of the project area



Photo Point 10: Excluded land under Clause 2.2.3.2 (e) of AS 3959 within the project area



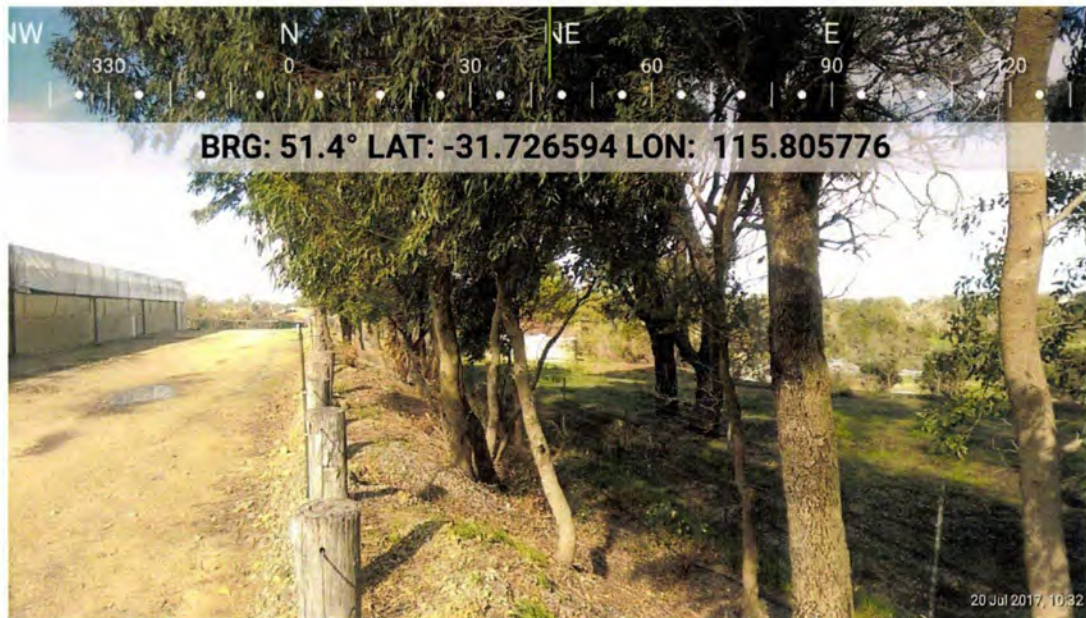


Photo Point 11: Excluded row of trees under Clause 2.2.3.2 (f) of AS 3959 within the project area



Photo Point 12: Class G grassland to the south of the project area





Photo Point 13: Class G grassland to the south of the project area on left, excluded areas under Clause 2.2.3.2 (e) and (f) of AS 3959 on right



Photo Point 14: Class B woodland to south of project area





Photo Point 15: Class B woodland to south of project area



Photo Point 16: Class B woodland to the south project area in background, firebreaks to the right excluded under Clause 2.2.3.2 (e) and (f)



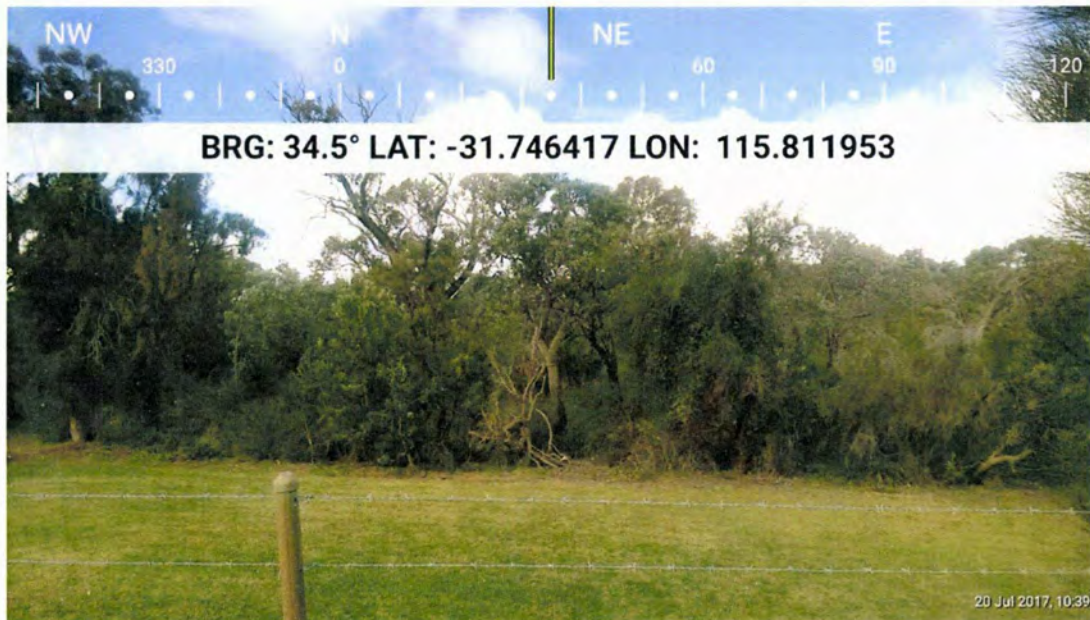


Photo Point 17: Class B woodland to the south project area in background, managed parkland excluded under Clause 2.2.3.2 and (f) of AS3959



Photo Point 18: Managed parkland excluded land under Clause 2.2.3.2 (e) and (f) of AS 3959 to the south of the project area





Photo Point 19: Excluded land under Clause 2.2.3.2 (e) and (f) of AS 3959 to the south-east of the project area



Photo Point 20: Class G grassland in the foreground, Class B woodland in the background, to the south-east of the project area





Photo Point 21: Excluded land under Clause 2.2.3.2 (e) and (f) of AS 3959 (on left and in centre) to the east of the project area



Photo Point 22: Class G grassland to the east of the project area, single row of trees in foreground would not significantly influence fire behaviour and therefore Class G grassland considered dominant vegetation class





Photo Point 23: Excluded land under Clause 2.2.3.2 (f) of AS 3959 to the east of the project area with some minor winter regrowth evident



Photo Point 24: Class G grassland to the east of the project area





Photo Point 25: Class G grassland to the east of the project area



Photo Point 26: Class G grassland to the east of the project area



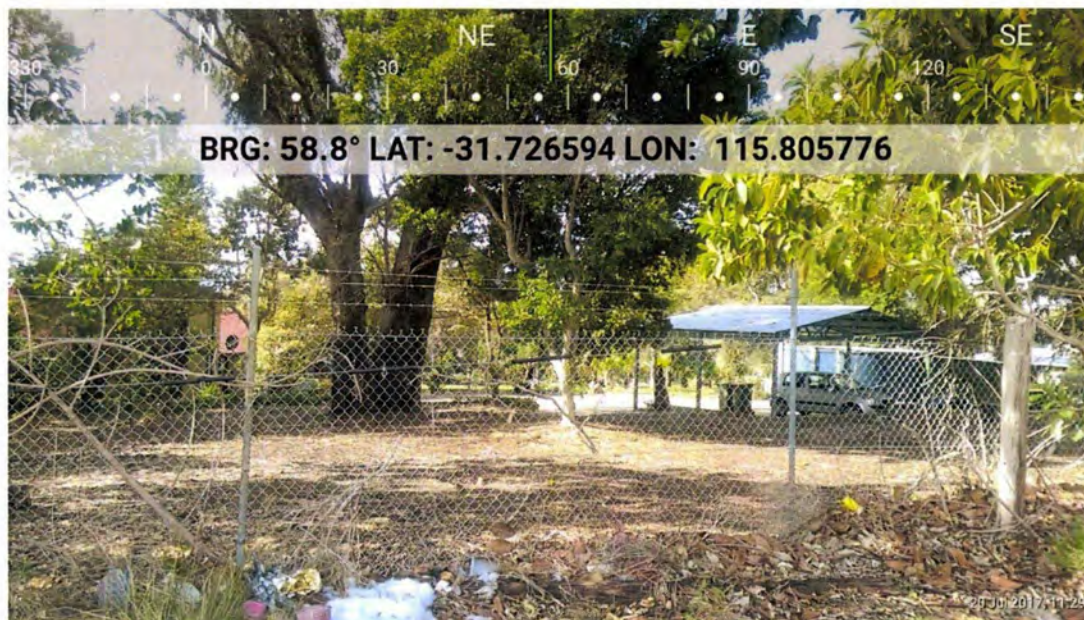


Photo Point 27: Excluded land under Clause 2.2.3.2 (f) of AS 3959 to the east of the project area



Photo Point 28: Excluded land under Clause 2.2.3.2 (e) of AS 3959 within the project area





Photo Point 29: Excluded land under Clause 2.2.3.2 (e) of AS 3959 within the project area



Photo Point 30: Excluded land under Clause 2.2.3.2 (f) of AS 3959 to the north-east of the project area





Photo Point 31: Excluded land under Clause 2.2.3.2 (e) and (f) of AS 3959 to the north of the project area



Photo Point 32: Excluded land under Clause 2.2.3.2 (b) of AS 3959 within the project area

**Appendix 2**  
**City of Wanneroo annual firebreak**  
**notice**



## Protect your home and property from bushfires

NOTICE TO ALL OWNERS OR OCCUPIERS OF LAND IN THE DISTRICT OF THE CITY OF WANNEROO REGARDING FIREBREAKS.

The City of Wanneroo hereby gives notice pursuant to Section 33 of the **Bush Fires Act 1954** to all owners or occupiers of land in its district that they are required on or before 15 November, or within 14 days of becoming the owner or occupier of the land if that occurs after the 15 November, to annually plough, cultivate, scarify, or otherwise clear firebreaks as specified in this Notice and thereafter up to, and including the 30 April, annually, to maintain the firebreaks clear of flammable matter.

### 1. Land having an area of 2000m<sup>2</sup> or more

A firebreak not less than 3 metres wide and 3 metres high immediately inside and around all external boundaries of the land must be cleared.

### 2. Land having an area of less than 2000m<sup>2</sup>

A firebreak not less than 2 metres wide and 2 metres high immediately inside and around all external boundaries of the land must be cleared.

### 3. Buildings

A firebreak not less than 3 metres wide immediately around all external walls of every building must be cleared. Whenever a firebreak is cleared by burning the provisions of the Act and Regulations made thereunder must be observed. If pursuant to Item (2) of this Notice, mowing or slashing is carried out the height of vegetation thereafter must not exceed, as far as is reasonably practicable, 20mm over the entire area of the firebreak. The use of chemicals is subject to all restrictions imposed by the Department of Agriculture. Attention is drawn to the Flammable Liquids Regulations made under the Explosives and Dangerous Goods Act 1961, which requires a site on which flammable liquid is stored to be totally cleared of all flammable material for a minimum distance of 5 metres surrounding the site.

If it is considered to be impracticable for any reason to comply with the provisions of this Notice, application may be made not later than the 1st day of November annually to the Council or its authorised officer for permission to provide alternative fire protection measures. If permission is not granted the requirements of this Notice must be complied with.

### Penalty

An owner or occupier of land who fails or neglects in any respect to comply with the requirements of this Notice is liable to a maximum fine of \$5,000.

### DATES TO REMEMBER

- Firebreaks must be cleared by **15 November (AND KEPT CLEAR UNTIL APRIL 30)**
- Burning permits required all year round
- Burning prohibited between **1 December to 31 March**

### When and how to obtain a fire permit

Permits are available from the City of Wanneroo at the following locations:

#### WANNEROO ANIMAL CARE CENTRE

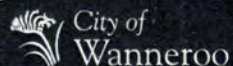
Located at the rear of the Ashby Operations Centre,  
1204 Wanneroo Road, Ashby  
The City's Rangers / Fire Control Officers are available to issue permits 7 days a week\* from 4pm - 6pm  
\*Except Good Friday

#### CITY OF WANNEROO CIVIC CENTRE

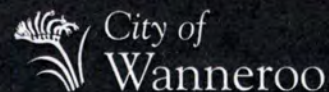
23 Dundobar Road, Wanneroo  
The City's Fire Control Officers / Permit Issuing Officers are available to issue permits Monday to Friday 9am - 4pm

### NEED ADVICE?

Further advice about how to protect your home, constructing firebreaks, and when and how to burn off, is available from the City of Wanneroo during office hours on 9405 5000.



23 Dundobar Road, Wanneroo, WA 6065  
Locked Bag 1, Wanneroo, WA 6946  
T : (08) 9405 5000 F : (08) 9405 5499  
After Hours : 1300 13 83 93  
E : enquiries@wanneroo.wa.gov.au  
wanneroo.wa.gov.au



PROTECT YOUR HOME  
AND PROPERTY FROM  
BUSHFIRES



## Keeping your home safe from fire

There are a number of ways you can help keep your home safe from fire:

- Install smoke detectors in your home
- Clear vegetation away from the walls of your home
- Clear all rubbish and flammable material from around your home to create a 20 metre circle of safety
- Store firewood, timber, petrol, and kerosene well away from your home
- Prior to summer, clean all leaves and debris from your gutters
- Don't have flammable trees such as conifers near buildings
- Have branches trimmed that overhang the house or powerlines
- Fit wire insect screens or shutters to windows and glass doors

If a firebreak is impractical along your boundary for environmental or other reasons notify the City of Wanneroo by 1 October to obtain permission to install firebreaks in alternative positions, or of a different nature.

### ALTERNATIVE METHODS OF REDUCING FIRE HAZARDS ON VACANT LAND

- For urban land less than 2000m<sup>2</sup>, if mowing or slashing is carried out, the height of the vegetation must not exceed, as far as is reasonably practical, 20mm over the entire area of the firebreak
- The use of chemicals is subject to all restrictions imposed by the Department of Agriculture
- Mulching • Disposal at an authorised rubbish tip site

## When and how to burn

### NO BURNING FROM 1 DECEMBER - 31 MARCH

Burning off - that is, bush/running fire including grass, on any land is totally prohibited between 1 December and 31 March. Fire permits for burning material other than garden rubbish are required all year round.

A person in control of the fire must stay with the fire until it is completely extinguished.

### GARDEN RUBBISH AND REFUSE

The burning of garden refuse is permitted between the hours of 6pm and 11pm, provided the fire danger rating is not VERY HIGH, SEVERE, EXTREME or CATASTROPHIC or a TOTAL FIRE BAN has been declared.

Fire danger rating signs are located at the following locations:

- Corner of Joondalup Drive and Wanneroo Road
- Wanneroo Road, south of the Yanchep Beach Road turn off
- Wanneroo Road, Carabooda • Marmion Avenue, Jindalee
- Neaves Road, Mariginiup • Old Yanchep Road, Pinjar
- Gnaragar Road, Landsdale • Country Side Drive, Two Rocks

Other points to remember when burning garden refuse and rubbish are:

- All bush and flammable material must be thoroughly cleared within two metres of all points of the site of the fire
- The material must be on the ground, and be no more than one metre wide and one metre high

Only one heap may be burnt at any one time

Incinerators may be used providing:

- The incinerator is properly constructed and designed to prevent the escape of sparks of burning material
- The incinerator is situated not less than two metres away from a building or fence
- An area of two metres surrounding the incinerator is clear of all flammable material

### BARBECUES

Only gas or electric barbecues may be lit during VERY HIGH, SEVERE, EXTREME or CATASTROPHIC fire danger rating or declared TOTAL FIRE BAN. The lighting of solid fuel barbecues is not permitted on these days.

### SMOKE NUISANCES

City of Wanneroo residents are advised to be mindful of smoke issues associated with any burning that they conduct. Steps should be taken to avoid undue smoke impact to neighbours and adjacent roads. Smoke across roadways can severely impact motorists' visibility and therefore road safety. Issues of smoke nuisance are regulated by the Waste Avoidance and Resource Recovery Act 2007.

### CAMPFIRES

Campfires must not be lit on VERY HIGH, SEVERE, EXTREME or CATASTROPHIC fire danger days or declared TOTAL FIRE BAN. A person must remain in attendance at the site during the whole time the fire is burning. The user must extinguish the fire using water or earth before leaving the area.

## Hints for safer burning

- Don't light a fire on a hot or windy day
- Don't burn more than you can control
- Let your neighbours know you'll be burning material
- Make sure smoke and sparks will not affect your neighbour's washing or enter open windows
- Cut or rake long grass around trees, building and fences before burning
- Burn against the wind
- On a sloping block, burn from the top down
- Keep a hose or spray pack at hand to dampen down fierce fires
- If in doubt, don't burn material yourself - call the Volunteer Fire Brigade
- Stay with the fire until it is completely extinguished
- Where possible, don't burn any closer than 20 metres from your home or other buildings

## Penalties

Under the Bush Fires Act 1954, failing to comply with regulations can result in a fine ranging from \$250 to \$250,000 or imprisonment.

Failure to maintain 2/3 metre firebreak as per firebreak order \$250

Offence relating to lighting fire in the open air \$250

Setting fire to bush during prohibited burning times \$250

Failure of occupier to extinguish bush fire \$250

Major offences result in Court action with fines ranging from \$250 to \$250,000 or imprisonment for 14 years.

### THE BIGGEST PENALTY OF ALL

The biggest penalty of all would be losing your loved ones or home to fire. Please ensure you, your family and your home are kept safe by taking the necessary precautions.

## Special rural and residential land

Owners and occupiers of special rural and special residential land should be aware of their responsibilities to take bush fire prevention measures, while ensuring they do not contravene Town Planning Scheme provisions which control the removal of vegetation in Special Residential and Special Rural Zones.

These special rural zones were created in areas of natural flora, and the Scheme recognises the importance of preserving the natural environment in these areas. Anyone found cutting down, lopping or damaging trees in these areas without City approval may be guilty of an offence.

However, bush fire prevention, including the installation of firebreaks, is essential regardless of the zoning of the land.

Below are some guidelines for installing firebreaks in special rural zones to prevent bush fires, while minimising damage to the natural environment.

- A 3 metre wide and 3 metre high firebreak should be cleared around the perimeter of special rural or special residential lots
- These firebreaks need not be strictly around the perimeter, but may deviate according to the flora
- The firebreak does not have to be ploughed but can instead be created by clearing and removing all flammable material
- Care should be taken to avoid damaging or removing significant trees and shrubs
- Avoid the build up of undergrowth and leaf litter