



Bushfire Management Plan

Lot 12 Kingsway Rd, Darch

Prepared for
Progress Developments
by Strategen

June 2017



Bushfire Management Plan

Lot 12 Kingsway Rd, Darch

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June 2017

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Client: Chieti Place Land Development Pty Ltd

Report Version	Revision No.	Purpose	Strategen author/reviewer	Submitted to Client	
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1. Introduction

1.1 Background

Chieti Place Land Development Pty Ltd is proposing to subdivide Lot 12 (No. 260) Kingsway, Darch (the project area), located in the City of Wanneroo. The proposed subdivision aims to create 34 lots, as depicted in Figure 1.

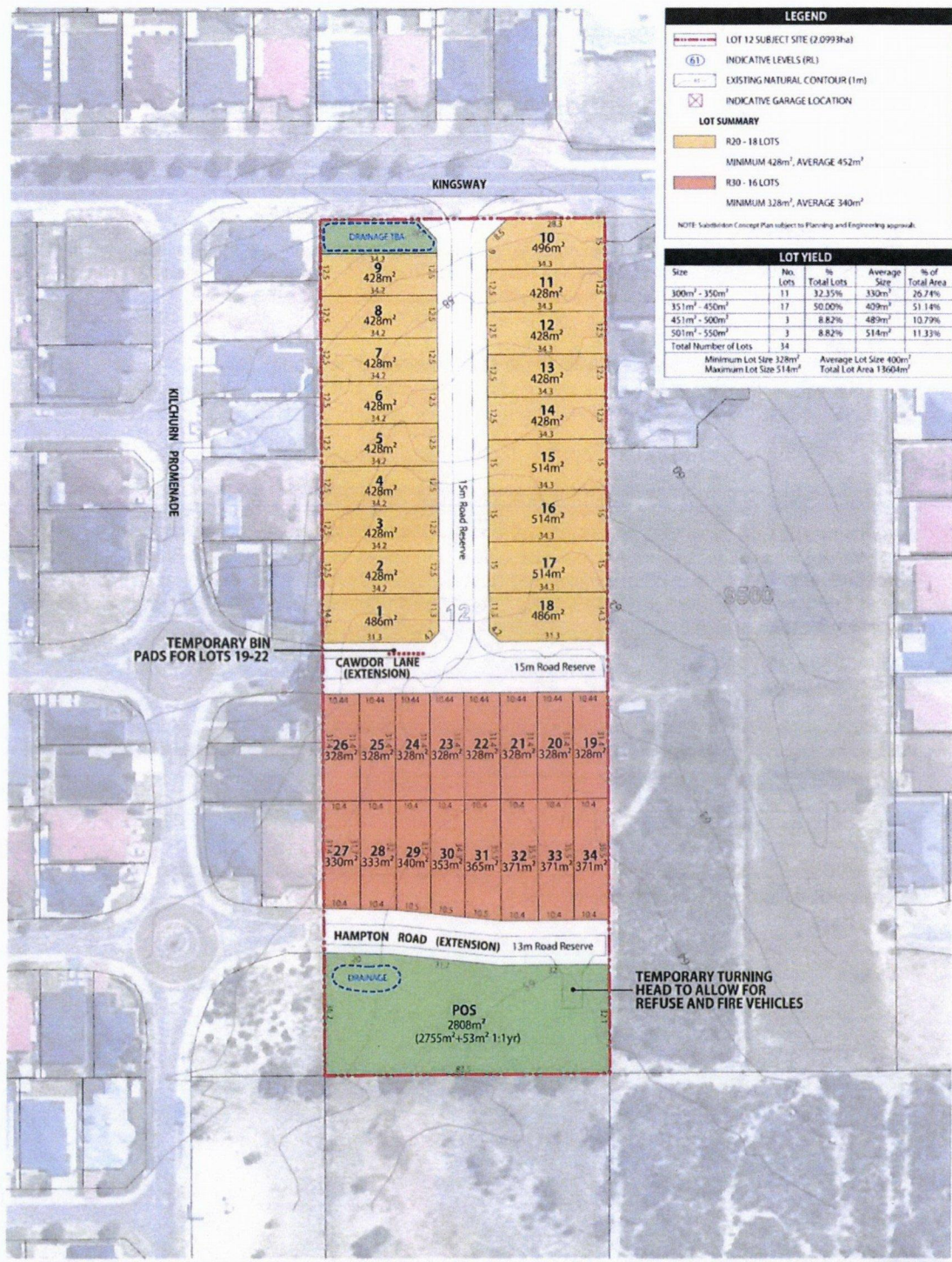
The project area is designated as bushfire prone on the *WA Map of Bush Fire Prone Areas* (DFES 2016) due to native vegetation located within 100 m of the site. As a result, Strategen has prepared this Bushfire Management Plan (BMP) to inform planning at the subdivision stage and meet the following requirements under *State Planning Policy 3.7 Planning in Bushfire Prone Areas* (SPP 3.7; WAPC 2015), namely Policy Measure 6.4:

- a Bushfire Attack Level (BAL) assessment prepared by an accredited bushfire planning practitioner
- identification of any bushfire hazard issues arising from the BAL assessment
- assessment against the bushfire protection criteria requirements contained within the Guidelines demonstrating compliance within the boundary of the development site.

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

1.2 Purpose of the BMP

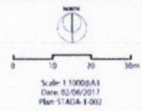
The purpose of this BMP is to provide guidance on how to plan for and manage the bushfire risk to future life and property assets of the project area through incorporation of a range of bushfire management measures into future planning, development design and construction. The BMP outlines how future 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.



SUBDIVISION CONCEPT PLAN - Option 4

Lot 12 (House No. 260) Kingsway, DARCH
A Creative Design & Planning Project

DRAFT



A: 28 Brown St, East Perth WA 6004
P: (08) 9425 0200
E: info@creativedesignplanning.com.au
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Source: Creative Design & Planning (2017)

Figure 1: Proposed Subdivision Layout



2. Spatial consideration of bushfire threat

2.1 Existing site characteristics

2.1.1 Location

The project area comprises Lot 12 Kingsway Road, Darch in the City of Wanneroo. The project area occupies approximately 2.1 ha and is bound by the following, as depicted in Figure 2:

- residential dwellings and to the west
- native vegetation and cleared lots to the east and south
- Kingsway Road to the north

2.1.2 Assets

The project area currently contains an existing residential dwelling and outbuildings, which represent the only existing life or property assets on the lots. The remainder of the Lot consists of undeveloped, vacant land. The surrounding land consist of urban residential dwellings, cleared land or native vegetation.

Most of the land within 100 m of the project area has been cleared of native vegetation, apart from the Lot 501 in the southeast and Lot 32 in the west, Lots 500 and 121 in the south. The project area contains some unmanaged grassland, and as such, lacks any significant environmental values.

2.1.3 Access

The project area is currently accessed via Kingsway Road to the north and Cawdor Lane and Hampton Road to the west, with future extensions of Cawdor Lane and Hampton Road to be available once subdivisions are developed, providing access between the lots.

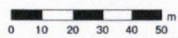
2.1.4 Water and power supply

Reticulated mains water and underground power supplies are available to the project area through extension of existing services from adjacent land.



Figure 2: Site plan

Scale 1:2,300 at A4



Coordinate System: GDA 1994 MGA Zone 50

Note that positional errors may occur in some areas

Date: 22/06/2017

Author: JCrute

Source: Aerial: Nearmap 03/2017; Existing cadastre: SLIP, Landgate 2017; Subdivision layout: STAKW-1-005 Base Plan-(170330).dwg; Client 04/2017

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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 100 m as per conditions at time of assessment on 21 June 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.

The following provides a summary of the pre-development vegetation extent:

- Class B woodland is present within Lot 12 Kingsway Road and southeast of the Lot. The Class B classification is based on the presence of low trees 2-10 m in height with 10-30% foliage cover
- Class G grassland is present within Lot 12 Kingsway Road and east of the Lot.
- Class D scrubland is present to the east of the Lot.

The above on-site vegetation, although being classified pre-development, will be cleared and earth-worked as part of subdivisional staging works to enable proposed residential development to progress throughout the site. This vegetation will therefore be removed and excluded from classification post-development. The proposed drainage basin in the north-west of the project area will also be cleared and will be maintained in a low threat condition.

Non-vegetated areas where vegetation has been removed to enable construction of roads, waterways, buildings and sealed areas are excluded from classification under Clause 2.2.3.2 (e) of AS 3959.

Areas where the land is managed in a low threat, minimal fuel condition occur throughout managed gardens, orchards, managed road verges and median strips and are excluded from classification under Clause 2.2.3.2 (f) of AS 3959.

2.2.2 Effective slope

Effective slope under classified vegetation has been assessed in accordance with methodology contained within AS 3959, which involved on-ground verification as per conditions at time of assessment on 21 June 2017.

The effective slope beneath the classified vegetation is down-slope (>0–5°) within the project area and to the east of it, with the land to the south and west of the project area assessed as flat/up-slope (0°).

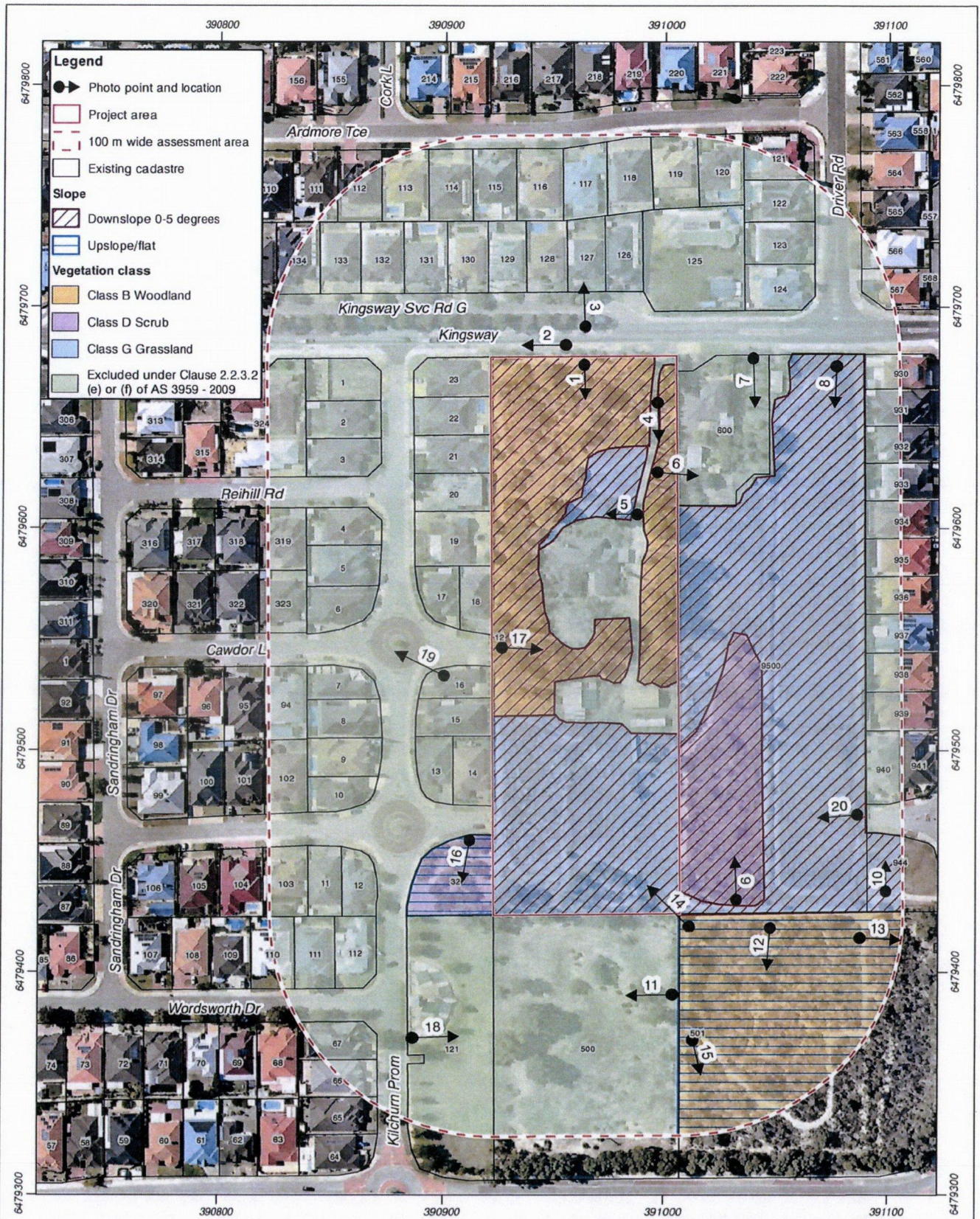
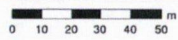


Figure 3: Vegetation Classification and Effective Slope

Scale 1:2,300 at A4



Coordinate System: GDA 1994 MGA Zone 50
 Note that positional errors may occur in some areas

Date: 23/06/2017

Author: JCrute

Source: Aerial: Nearmap 03/2017; Existing cadastre: SLIP, Landgate 2017; Subdivision layout: STAKW-1-005 Base Plan-(170330).dwg; Client 04/2017

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2.3 BAL contour assessment

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

The Method 1 procedure for calculating the BALs (as outlined in AS 3959) incorporates the following factors:

- state-adopted Fire Danger Index (FDI) rating
- vegetation class
- effective slope
- distance maintained between proposed development areas and the classified vegetation.

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 will consist of Class G grassland on lots to the south and east of the project area, with Class B woodland to the southeast and Class D scrub retained to the east and southeast of the project area.

2.3.3 Effective slope

Effective slope is described in Section 2.3.3 (Figure 3) and consists of down-slope (>0–5°) and flat/up-slope land (0 degrees).

2.3.4 Distance between proposed development areas and the classified vegetation

The worst-case separation distance between proposed development and the post-development classified vegetation extent is a minimum of 15 m adjacent to Class D scrub in order to achieve the necessary compliance with a BAL–29 rating or lower. These separation distances will form the Asset Protection Zones (APZs) for the site and can be achieved predominantly through existing vegetation exclusions on adjacent land.

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.

The BAL assessment and APZs are depicted in Figure 4 and land within the project area that is unaffected by a BAL rating is considered to be BAL–Low, where there is insufficient risk to warrant specific building construction requirements. On the basis of the abovementioned parameters, the worst case BAL rating for the proposed development is BAL–29.

Table 1: Method 1 BAL calculation

Vegetation class	Effective slope	BAL contours (separation distance)	BAL rating	Comment
Class B woodland	Down-slope (>0–5 degrees)	<13 m	BAL-FZ	No residential development is proposed in this area
		13–<17 m	BAL-40	No residential development is proposed in this area
		17–<25 m	BAL-29	No residential development is proposed in this area
		25–<35 m	BAL-19	No residential development is proposed in this area
		35–<100 m	BAL-12.5	Residential development is proposed in this area
Class D scrub	Flat / Up-slope (0 degrees)	<10 m	BAL-FZ	No residential development is proposed in this area
		10–<13 m	BAL-40	No residential development is proposed in this area
		13–<19 m	BAL-29	Residential development is proposed in this area
		19–<27 m	BAL-19	Residential development is proposed in this area
		27–<100 m	BAL-12.5	Residential development is proposed in this area
Class D scrub	Down-slope (>0–5 degrees)	<11 m	BAL-FZ	No residential development is proposed in this area
		11–<15 m	BAL-40	No residential development is proposed in this area
		15–<22 m	BAL-29	No residential development is proposed in this area
		22–<31 m	BAL-19	No residential development is proposed in this area
		31–<100 m	BAL-12.5	Residential development is proposed in this area
Class G grassland	Flat / Up-slope (0 degrees)	<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
		8–<12 m	BAL-29	No residential development is proposed in this area
		12–<17 m	BAL-19	No residential development is proposed in this area
		17–<50 m	BAL-12.5	Residential development is proposed in this area
Class G grassland	Down-slope (>0–5 degrees)	<7 m	BAL-FZ	No residential development is proposed in this area
		7–<9 m	BAL-40	No residential development is proposed in this area
		9–<14 m	BAL-29	No residential development is proposed in this area
		14–<20 m	BAL-19	No 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

There is minimal landscape scale bushfire risk to the project area due to the level of clearing and development within the local area. The native vegetation to the east, south and southwest of the project area is bound by firebreaks and managed vegetation; thereby resulting in discrete vegetation plots with very small fire runs.

The most significant bushfire risk in the area is posed by vegetation southwest and southeast of the project area, where potential fire runs are possible through the patchy scrub, grassland and woodland vegetation. Ember attack could potentially impact the project area under this scenario, particularly during easterly winds, typical of morning summertime conditions; however, no radiant heat impact is expected due to the significant separation provided by the proposed clearing for Asset Protection Zones (APZs) and the Hampton Road extension. The Hampton Road extension also provides access for emergency services and fire suppression if required.

Management of the bushfire hazard will be achieved by focussing on providing adequate hazard separation from the adjacent scrub, grassland and woodland plots in the form of Asset Protection Zones. The adjacent privately-owned lots shall be managed to prevent impact from bushfire adjacent to the project area. Additionally, the client will also be required to keep the project area in a low threat condition for the duration of the subdivision development to prevent potential bushfire impact from vegetation regrowth on the site.

Access and egress to the proposed residential development will largely be via the Cawdor Lane and Hampton Road extensions, towards public road networks in order to direct residents away from the direction of predominant bushfire risk. Fire brigades will have sufficient access to the development via those two road extensions and firefighting water supplies will be from street hydrants on the town main water supply.

On the basis of the above information, Strategen considers the bushfire hazards and associated bushfire risk are readily manageable through standard acceptable solution responses outlined in the Guidelines and AS 3959. These responses will need to be factored in to proposed development as early as possible to ensure a suitable, compliant and effective bushfire management outcome is achieved to ensure protection of future life and property assets.

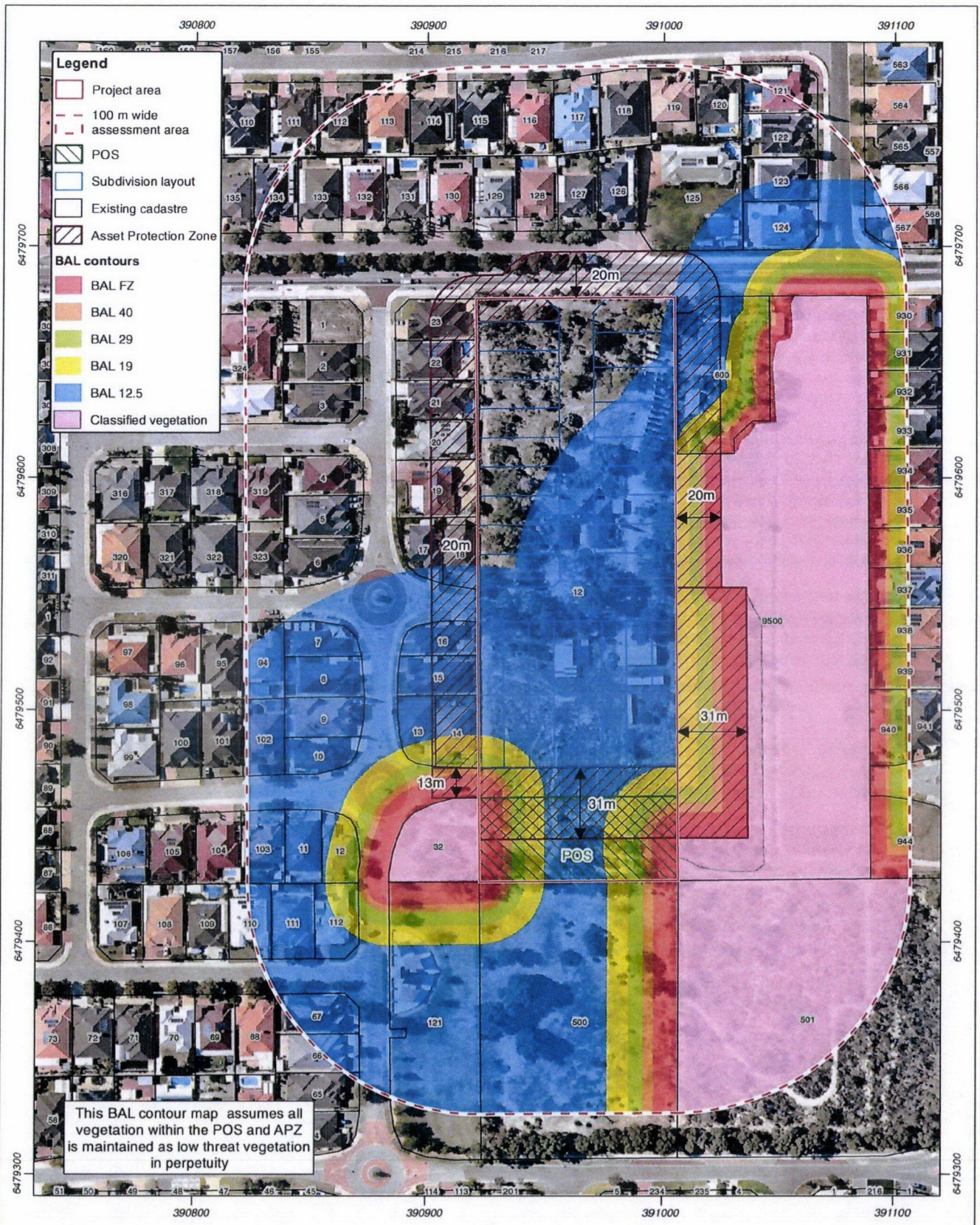
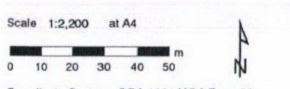


Figure 4: BAL contour map



Coordinate System: GDA 1994 MGA Zone 50
 Note that positional errors may occur in some areas
 Date: 30/06/2017

Author: JCrute
 Source: Aerial: Nearmap 03/2017; Existing cadastre: SLIP, Landgate 2017; Subdivision layout: STAKW-1-005 Base Plan-(170330).dwg; Client 04/2017

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3. Bushfire management measures

Strategen has identified a range of bushfire management measures that on implementation will enable the project area to be developed with a manageable level of bushfire risk and full compliance with the Guidelines and AS 3959. The bushfire management measures are discussed in the following subsections.

3.1 Asset Protection Zones (APZs)

Proposed building locations are yet to be determined (this will be confirmed when building licenses are applied for). Therefore, for the purposes of informing a compliant outcome at the subdivision stage, sufficient hazard separation distance can be achieved between classified vegetation and proposed development to ensure the proposed lot achieves a rating of BAL-29 or lower as per Guidelines Acceptable Solution A1.1. The hazard separation in the form of an Asset Protection Zone (APZ) from Class D scrub and Class G grassland with effective slope of downslope ($>0-5^\circ$) to the east and south of the project area, will be established and maintained on Lot 9500 and will have a width of no less than 31 m and 20 m respectively. To ensure sufficient separation from Class D scrub vegetation, on flat/upslope land, an APZ within Lot 12 is to be no less than 13 m to ensure a BAL rating of BAL-29 or lower. An APZ of 20 m will be required around the remainder of the proposed subdivision will ensure the BAL rating is not greater than BAL-12.5, and as such, compliant with Acceptable Solution A1.1. The confirmed APZ width shown in Figure 4 is in accordance with Acceptable Solution A2.1, with creation and maintenance of the APZ on Lot 9500 agreed as per the Letter of Agreement by the parties involved (see Appendix 3)

The APZ will consist of cleared and managed land maintained in a cleared/low threat minimal fuel condition to ensure the maximum BAL rating imposed on the project area is BAL-29 or lower as per Clause 2.2.3.2 (f) of AS 3959-2009. In addition, the drainage basin in the north-west of the proposed subdivision will also be established and maintained in a low threat condition.

3.2 Increased building construction standards

Bushfire constructions provisions of the National Construction Code require that buildings comply with the construction requirements, in accordance with the assessed BAL under AS 3959, provided the building is a Class 1, 2 or 3 building or a Class 10a building associated with a Class 1, 2 or 3 building.

The proposed buildings are likely to be Class 1, 2, 3 and/or associated 10a buildings in accordance with the National Construction Code, and as such, there is a statutory requirement for buildings in this subdivision to meet the construction requirements of AS 3959.

With the creation of the APZ's, no development will occur within areas of BAL-FZ or BAL-40, meaning that all proposed development within the project area can achieve a rating of BAL-29 or lower in accordance with Guidelines acceptable solution A 1.1.

Any land within the project area that is unaffected by a BAL rating is considered to be BAL-Low, where there is insufficient risk to warrant specific building construction requirements.

Bushfire construction provisions of the National Construction Code (i.e. AS 3959-2009; BALs) do not apply to Class 4 to Class 9 buildings. In these instances, the applicant has the discretion to utilise any or all of the elements of AS 3959 2009 in the construction of the building that they deem appropriate

3.3 Vehicular access

The proposed vehicular access network will provide access to the surrounding public road network in Kingsway Road to the north and Landsdale Road to the south, whereby travel will be permitted either a northerly or southerly direction through predominately urban residential development away from the predominant bushfire risk. The connection of the proposed extensions ensures a minimum of two access routes are provided at all times; thereby meeting compliance with Acceptable Solution A3.1. In addition, all proposed public roads will meet the technical requirements of the Guidelines in accordance with Acceptable Solution A3.2, as outlined in Table 2.

Strategen acknowledges that the proposed road extensions will eventually interlink with future roads on adjacent lots to the east. Until these connections are made, there will be two temporary dead ends created on the west-east oriented road and a temporary cul-de-sac/turnaround at the end of the road. This is not considered to affect development compliance since this cul-de-sac will be approximately 100 m long and the turnaround head will have a diameter of 17.5 m to ensure members of the public and emergency services are not subject to any additional bushfire risk throughout the duration of these temporary access arrangements. The cul-de-sac will meet all other technical requirements of the Guidelines, as outlined in Table 2; thereby meeting compliance with Acceptable Solution A3.3.

No battle axes, private driveways longer than 50 m, emergency access ways, fire service access routes or firebreaks are proposed or required as part of this development, and on this basis, Acceptable Solutions A3.4 through to A3.8 are not applicable in this instance.

Table 2: Vehicular access technical requirements

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

*Refer to E3.2 Public roads: Trafficable surface

Source: WAPC 2017

3.4 Reticulated water supply

The proposed lot within the project area will be provided with a reticulated water supply through extension of existing services from the existing dwelling and surrounding residential areas. The reticulated system will ensure an all year round supply of water is provided for the lot to meet minimum domestic or industrial and emergency water supply requirements.

3.5 Additional measures

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

1. **Notification on Title:** 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.
2. **Agreement of land owner to maintain APZ:** a written agreement to maintain the 13 m, 20 m and 31 m wide APZ (as per Figure 4) is required from the land owner to ensure the proposed development does not fall within BALFZ or BAL40

3. BMP addendum and future BAL assessment: a BMP addendum or BAL assessment may be prepared at a later date to demonstrate any change in the assessed BAL or other management measure documented in this BMP, which may occur as a result of a change in development design or the classified vegetation extent, or through detailed siting of buildings at the DA/building permit stage.
4. Compliance with current City of Wanneroo firebreak notice: all parties are to comply with the current City of Wanneroo annual firebreak notice (Appendix 2), which specifies that for all property (vacant or developed) less than 2000 m², a firebreak no less than 2 metres wide by 2 metres high is required around the perimeter and the growth on the firebreak cannot exceed 20mm high.

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.

6.4 Information to accompany subdivision applications

Any subdivision application to which policy measure 6.2 applies is to be accompanied by the following information in accordance with the Guidelines:

- a) a BAL Contour Map to determine the indicative acceptable BAL ratings across the subject site, in accordance with the Guidelines. BAL Contour Maps should be prepared by an accredited Bushfire Planning Practitioner (Note Given the minor nature of this proposed development BAL classifications have been prepared for each lot and outlined in the BMP).
- b) the identification of any bushfire hazard issues arising from the BAL Contour Map
- c) an assessment against the bushfire protection criteria requirements contained within the Guidelines demonstrating compliance within the boundary of the subdivision site.

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 take into account 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 3 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.



Photo Point 1: Class B woodland located within the site

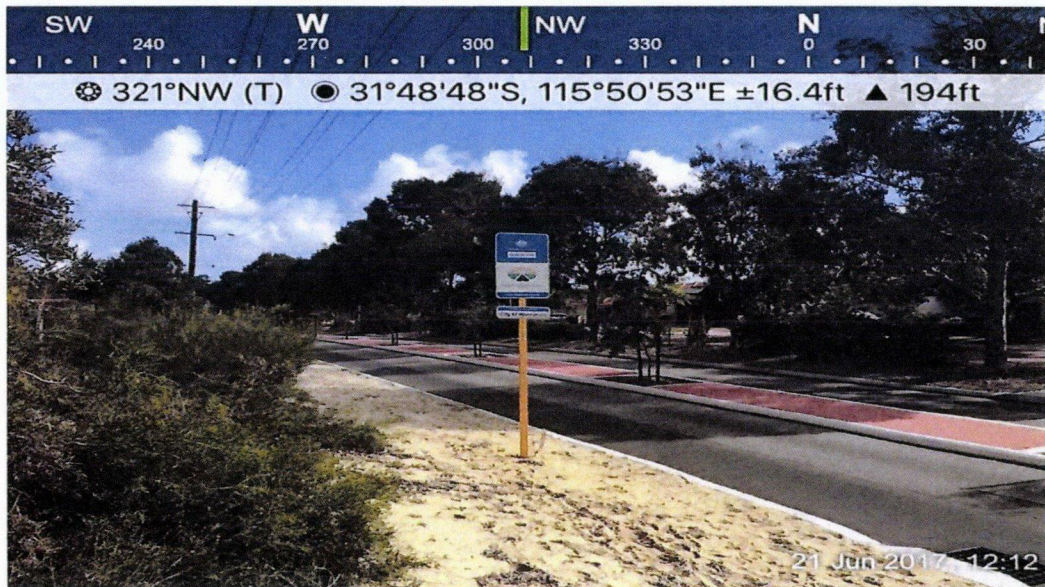


Photo Point 2: Low threat and non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959 (roads, managed verges)

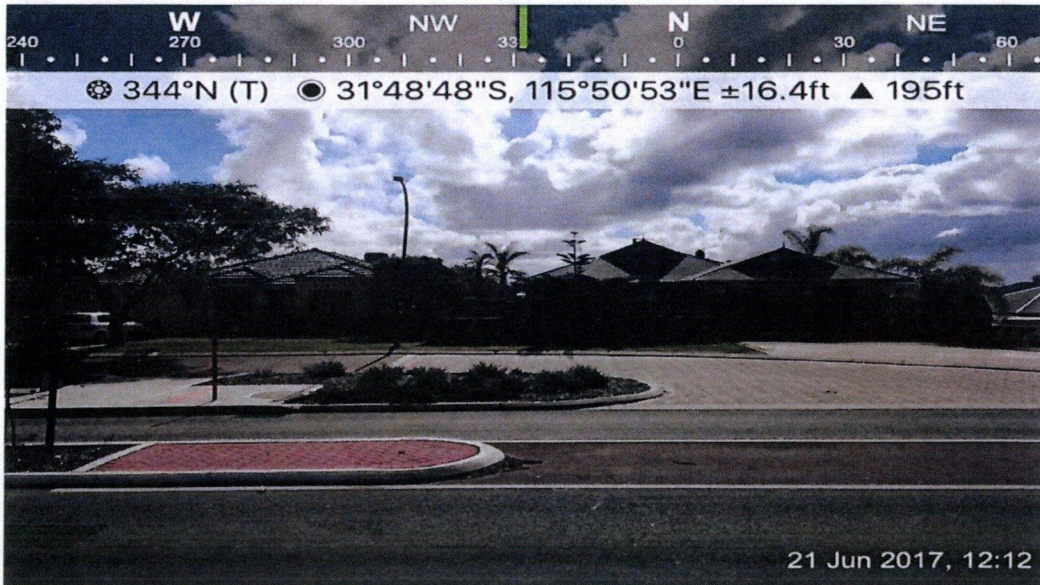


Photo Point 3: Low threat managed land excluded from classification under Clause 2.2.3.2 (e) and (f) of AS 3959



Photo Point 4: Non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) of AS 3959 (centre drive-way) and Class B woodland (left and right)



Photo Point 5: Class G grassland within the site



Photo Point 6: Non-vegetated and low threat areas excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959

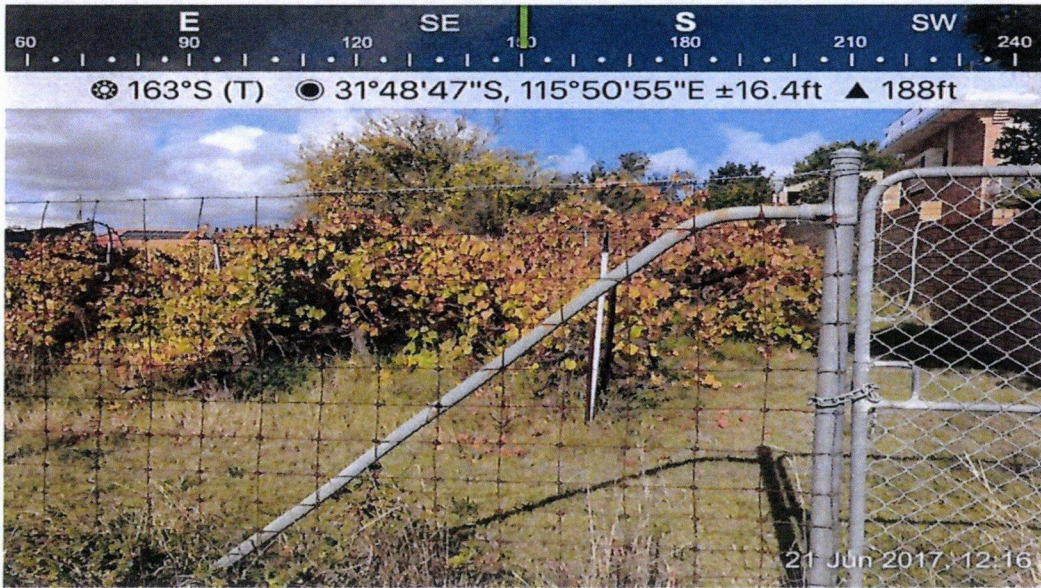


Photo Point 7: Low threat and non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959



Photo Point 8: Class G grassland



Photo Point 9: Class G grassland (foreground), Class D scrub (background)



Photo Point 10: Low threat and non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959



Photo Point 11: Low threat and non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959

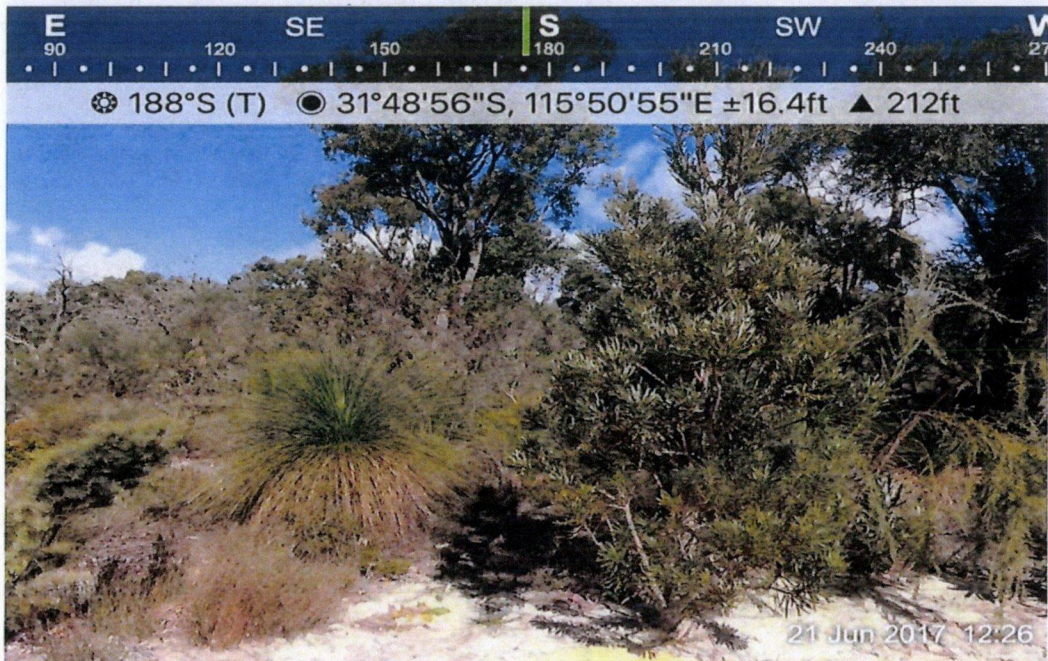


Photo Point 12: Class B woodland

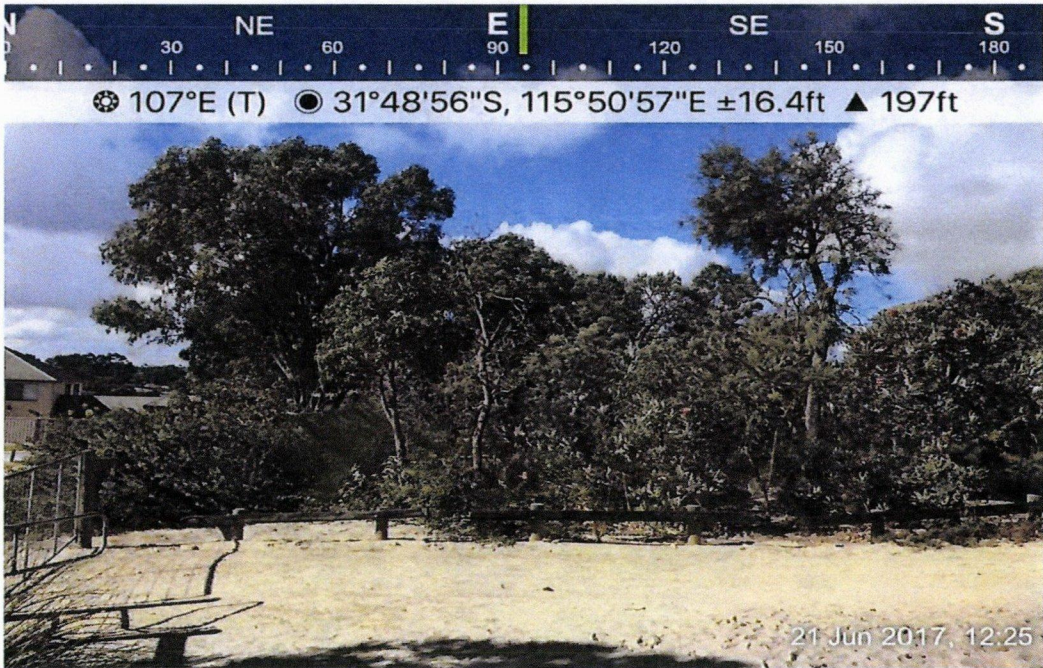


Photo Point 13: Class B woodland

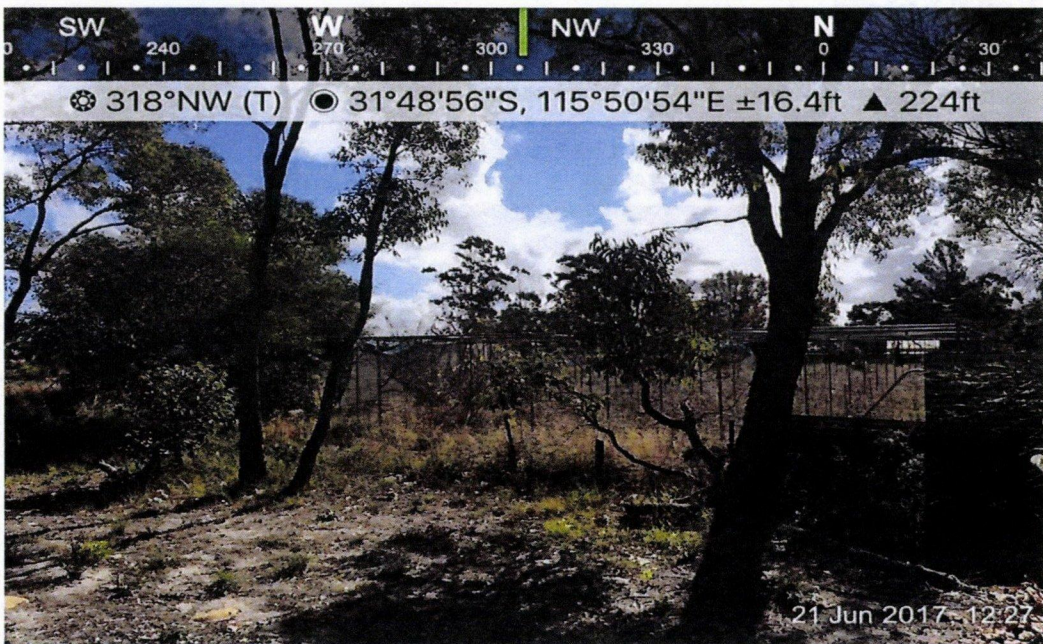


Photo Point 14: Class G grassland

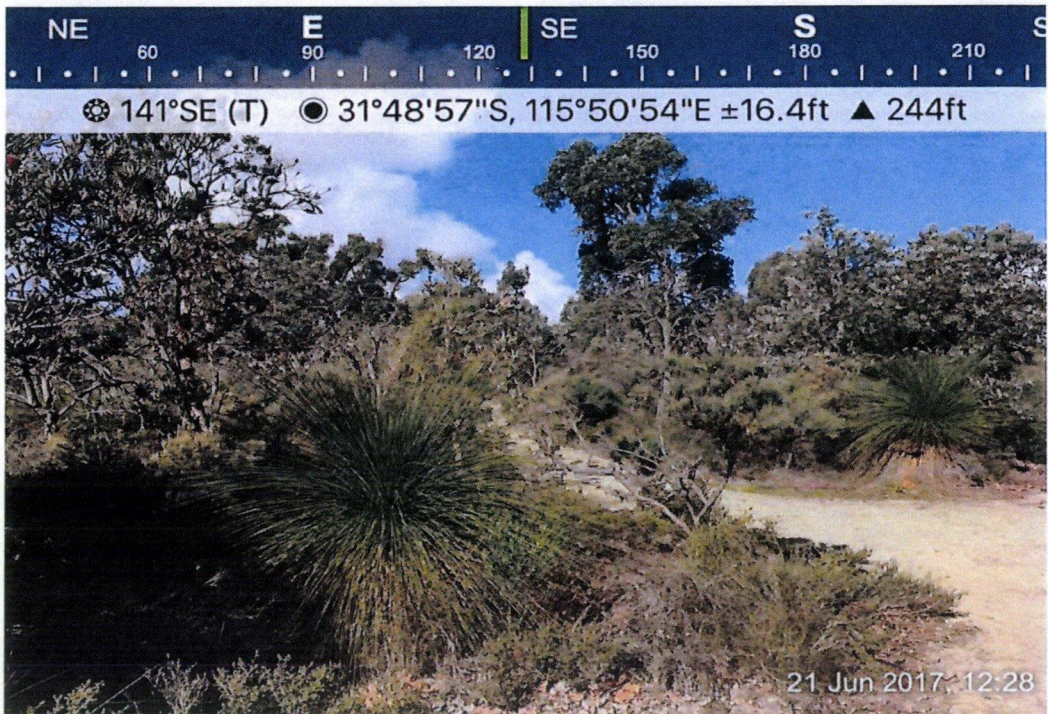


Photo Point 15: Class B woodland



Photo Point 16: Class D scrub (background), non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) of AS 3959 (foreground)

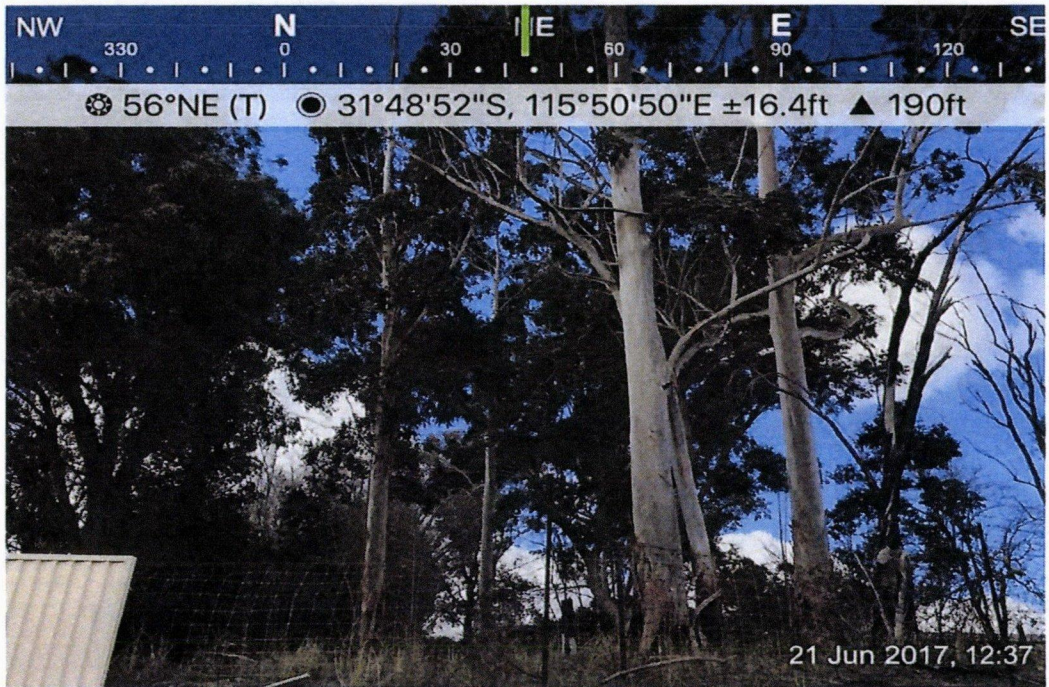


Photo Point 17: Class B woodland



Photo Point 18: Low threat and non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959



Photo Point 19: Low threat and non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959

Appendix 2
City of Wanneroo 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 2000m² 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 2000m²

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

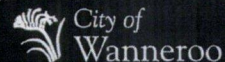
Located at the rear of the Ashby Operations Centre, 1204 Wanneroo Road, Ashby
The City's Rangers / Fire Control Officers are available to issue permits 7 days a week* from 4pm - 6pm
*Except Good Friday



CITY OF WANNEROO CIVIC CENTRE

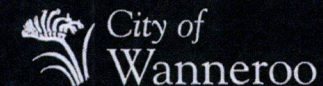
23 Dundobar Road, Wanneroo
The City's Fire Control Officers / Permit Issuing Officers are available to issue permits Monday to Friday 9am - 4pm

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 2000m², 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
- Gngalara 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



Schedule 3

Fuel Management Works Letter

Chieti Place Land Development Pty Ltd
2A Sixth Avenue
APPLECROSS WA 6153

Mr Carl Lombardo
Director
Swancolt Pty Ltd
122 Main Street
OSBORNE PARK WA 6017

28 June 2017

Dear Carl

**Asset Protection Zone Fuel Management
Proposed Subdivision - 260 Kingsway Road, Darch, WA**

Chieti Place Land Development Pty Ltd (**Chieti**) has secured an option to purchase 260 Kingsway Road, Darch WA, more particularly described as Lot 12 on Diagram 18036 being the whole of the land in certificate of title Volume 1535 Folio 187 (**Lot 12**) with a view to completing a residential subdivision.

Swancolt Pty Ltd (**Swancolt**) is the registered proprietor of Lot 9500 Kingsway Road, Darch WA, more particularly described as Lot 9500 on Deposited Plan 49782 being the whole of the land in certificate of title Volume 2664 Folio 423 (**Lot 9500**). Lot 9500 adjoins Lot 12.

Subject to Chieti (or a related entity of Chieti) becoming the registered proprietor of Lot 12 (**Lot 12 Owner**), to mitigate bushfire risk on the proposed subdivision of Lot 12, the Lot 12 Owner requires access to Lot 9500 as and when necessary to undertake the fuel management works required by the Bushfire Management Plan (Strategen (ref: STP17151_01 R001) which accompanies Chieti's application to subdivide Lot 12.

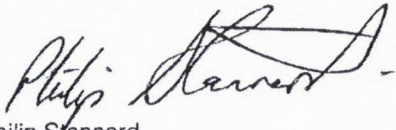
The fuel management works will be undertaken at the Lot 12 Owner's cost in accordance with the relevant regulatory framework. The Lot 12 Owner will ensure that the relevant contractor undertaking the fuel management works has public liability insurance as a condition of entry on to Lot 9500.

Swancolt's grant of access shall continue until such time that Lot 9500 has been developed and there is no vegetation that would result in a bush fire risk from Lot 9500.

Chieti acknowledges that this document is not intended to create an interest in or otherwise encumber the legal title to Lot 9500.

Please confirm Swancolt's agreement to grant the access to Lot 9500 as set out in this letter by signing below.

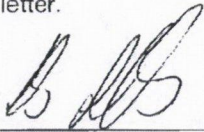
Yours sincerely



Philip Stannard
Director
Chieti Place Land Development Pty Ltd

Att: Schedule 1 (Standards for Asset Protection Zones) from State Planning Policy 3.7 Guidelines

I, Carl Lombardo as a director of Swancolt Pty Ltd confirm agreement to the terms set out in this letter.



Signature

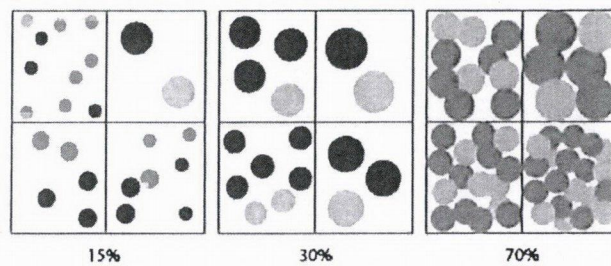
Dated: 29/6/17

ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

SCHEDULE 1: STANDARDS FOR ASSET PROTECTION ZONES

- **Fences:** within the APZ are constructed from non-combustible materials (e.g. Iron, brick, limestone, metal post and wire). It is recommended that solid or slatted non-combustible perimeter fences are used.
- **Objects:** within 10 metres of a building, combustible objects must not be located close to the vulnerable parts of the building i.e. windows and doors.
- **Fine Fuel load:** combustible dead vegetation matter less than 6 millimetres in thickness reduced to and maintained at an average of two tonnes per hectare.
- **Trees (> 5 metres in height):** trunks at maturity should be a minimum distance of 6 metres from all elevations of the building, branches at maturity should not touch or overhang the building, lower branches should be removed to a height of 2 metres above the ground and or surface vegetation, canopy cover should be less than 15% with tree canopies at maturity well spread to at least 5 metres apart as to not form a continuous canopy.

Figure 16: Tree canopy cover – ranging from 15 to 70 per cent at maturity



- **Shrubs (0.5 metres to 5 metres in height):** should not be located under trees or within 3 metres of buildings, should not be planted in clumps greater than 5m² in area, clumps of shrubs should be separated from each other and any exposed window or door by at least 10 metres. Shrubs greater than 5 metres in height are to be treated as trees.
- **Ground covers (<0.5 metres in height):** can be planted under trees but must be properly maintained to remove dead plant material and any parts within 2 metres of a structure, but 3 metres from windows or doors if greater than 100 millimetres in height. Ground covers greater than 0.5 metres in height are to be treated as shrubs.
- **Grass:** should be managed to maintain a height of 100 millimetres or less.