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# Bushfire Management Plan

## Matson St and Holmes St Local Structure Plan

Prepared for  
KeyClub Holdings Pty Ltd  
by Strategen

October 2019





# **Bushfire Management Plan**

## **Matson St and Holmes St Local Structure Plan**

Strategen is a trading name of  
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October 2019

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### **Environmental conclusions**

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### **Client: KeyClub Holdings Pty Ltd**

Report Version	Revision No.	Purpose	Strategen author/reviewer	Submitted to Client	
				Form	Date
Draft Report	Rev A	For client review	L Wears (BPAD19809 / R Banks (BPAD36857)	Electronic (email)	06/02/2018
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## Executive Summary

Dynamic Planning and Developments, on behalf of KeyClub Holdings Pty Ltd, is preparing a Local Structure Plan (LSP) for Lots 8, 9 and 1792 Holmes Street and Lots 5, 6 and 77, Matison Street, Southern River in the City of Gosnells, to facilitate development of the site for urban use.

Due to the current extent of adjacent vegetation, a portion of the development is designated as bushfire prone, as outlined on the Western Australian *Map of Bush Fire Prone Areas* (DFES 2017). Strategen has prepared this Bushfire Management Plan (BMP) to accompany the Structure Plan in order to meet planning requirements triggered under *State Planning Policy 3.7 Planning in Bushfire-Prone Areas* (WAPC 2015).

Strategen considers a bushfire approaching the proposed development from the west and east to be the worst-case bushfire scenario due to the presence of woodland fuels in this direction. Although there are extended fire runs to the south-west and south-east that 2 to 3 km long, this is mainly through degraded pastoral land consisting of grassland and small plots of woodland vegetation. It appears there are new developments commencing to the north of the project area and these will result in further clearing and fragmentation of the bushfire hazard, which will assist in reducing the bushfire impact on the proposed development.

The bushfire risks to proposed development posed by this post development hazard can be managed through standard application of acceptable solutions under the Guidelines, including provision for and implementation of Asset Protection Zones (APZs), relevant bushfire building construction standards, provision of adequate emergency water supply and vehicular access, as well as through a direct bushfire suppression response if required.

Bushfire Attack Level (BAL) contour mapping prepared over the site demonstrates that minimum separation distances for a BAL-29 rating or lower can be achieved for all proposed development areas in the form of APZs consisting of either road reserves or building setbacks. Potential development areas impacted by a BAL-29 rating are minimal, with the majority of development areas impacted by a BAL response being limited to BAL-19 and BAL-12.5.

To manage bushfire risk to future assets and achieve compliance with bushfire planning requirements, this BMP recommends a range of bushfire management measures to be addressed as part of future bushfire planning requirements for development within the Precinct, including:

- provision of minimum APZs to achieve a maximum BAL-29 rating under Australian Standard AS 3959-2009 *Construction of Buildings in Bushfire-prone Areas* (SA 2009)
- if development, and therefore vegetation clearing, is to be staged implementation of 100 m low fuel buffers where necessary to ensure habitable building construction is not inhibited by temporary vegetation extent located within adjacent stages yet to be cleared
- should development stages be constructed prior to removal of bushfire hazards on adjoining landholdings, temporary quarantining of some lots would be required if the rating exceeded BAL-29. This approach is not currently required for this proposed structure plan but may be should the design be altered.
- construction of proposed buildings to meet the standard appropriate to the assessed BAL rating for that location where relevant
- all residents, visitors and public are provided with at least two vehicular access routes connecting to the surrounding public road network at all times, including during development staging
- All public roads, any cul-de-sacs, private driveways longer than 50 m and emergency access ways to be constructed in accordance with technical requirements of the *Guidelines for Planning in Bushfire-Prone Areas* (WAPC 2017)
- implementation of and compliance with provisions of the City of Gosnells annual firebreak notice

- provision of a reticulated water system, in accordance with water authority, DFES and City technical requirements, that ensures a year-round supply of water to meet emergency water supply requirements
- at subsequent planning stages, BMPs to include a requirement for notification to be placed on title for all lots within bushfire prone areas as a condition of subdivision to ensure landowners and prospective purchasers are aware that increased building construction standards and the BMP may apply
- at development application stage, preparation and implementation of risk management plans for proposed high risk land uses (if any) located in areas of BAL-12.5 to BAL-29
- at development application stage, preparation and implementation of emergency evacuation plans for proposed vulnerable land uses (if any) located in areas of BAL-12.5 to BAL-29
- revision of existing BMP, including updated BAL contour assessment, at future planning stages (such as subdivision stage) to ensure the management measures and BAL ratings and separation distances are consistent with the final development proposal.

These responses are being factored in to proposed development early in the planning process to ensure a suitable, compliant and effective bushfire management outcome is achieved for protection of future life, and property assets.

Implementation of bushfire management measures within the proposed development will apply to developers, prospective landowners and local government to ensure bushfire management measures are adopted and implemented on an ongoing basis. An indicative works program has been provided to guide future planning and will need to be revised and updated as part of further bushfire planning requirements as planning stages progress.

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# 1. Introduction

## 1.1 Background

Dynamic Planning and Developments, on behalf of KeyClub Holdings Pty Ltd, is preparing a Local Structure Plan (LSP) for Lots 8, 9 and 1792 Holmes Street and Lots 5, 6 and 77, Matison Street, Southern River (the project area) in the City of Gosnells, to facilitate development of the site for urban use. The LSP identifies development cells for residential land use in addition to several Public Open Space (POS) areas and a water course in the northern part of the site (Figure 1). Lot layout is yet to be determined for this planning proposal.

The project area is 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 a strategic planning proposal under *State Planning Policy 3.7 Planning in Bushfire Prone Areas* (SPP 3.7; WAPC 2015) in accordance with Policy Measure 6.3:

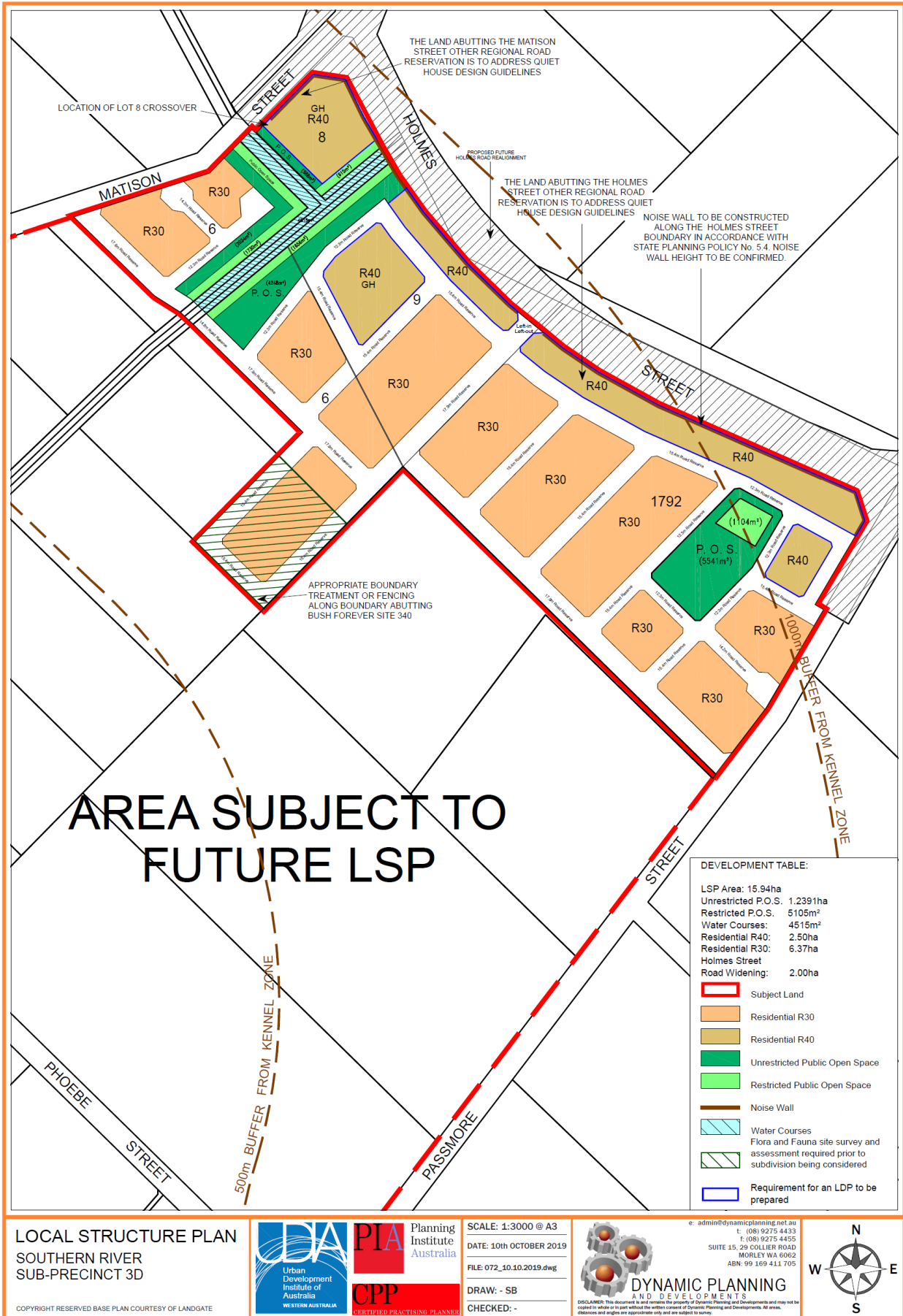
- results of a Bushfire Attack Level (BAL) contour assessment identifying the indicative BAL ratings across the subject land in accordance with methodology set out in *Guidelines for Planning in Bushfire-Prone Areas* (the Guidelines; WAPC 2017) – refer to Section 2.3 and Figure 4
- identification of any bushfire hazard issues arising from the BAL contour assessment – 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 3 and Table 3.

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

This BMP will need to be updated at subsequent planning stages (e.g. subdivision and development application as required), at which time any changes to development design and/or clearing extent can be considered and addressed.

## 1.2 Purpose and application of the plan

The purpose of this BMP is to provide high level consideration of bushfire risk within the project area and guidance on bushfire management requirements at future planning and development stages.



LOCAL STRUCTURE PLAN  
SOUTHERN RIVER  
SUB-PRECINCT 3D

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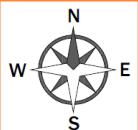


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Source: Dynamic Planning and Development (2019)

Figure 1: Proposed Development



## 2. Spatial consideration of bushfire threat

### 2.1 Existing site characteristics

#### 2.1.1 Location

The project area is located approximately 20 km southeast of Perth in the City of Gosnells, and comprises approximately 16 ha consisting of Lots 8, 9 and 1792 Holmes Street and Lots 5, 6 and 77, Matison Street, Southern River.

The project area is bound by the following, as depicted in Figure 2:

- Matison Street, cleared undeveloped land and existing rural residential lots to the north
- Holmes Street and uncleared, undeveloped land to the east
- Passmore Street and grazed agricultural land to the south
- uncleared and undeveloped rural land to the west.

#### 2.1.2 Zoning and land use

The majority of the project area is currently zoned 'Residential Development' under provisions of the City of Gosnells Town Planning Scheme No 6, with the drain in the northern part zoned as 'Waterways' and the land adjacent to eastern boundary is zoned as 'Other Regional Roads'. Land to the west is zoned 'General Rural' and as 'Waterways' where the drain extends to the west. Land to the east of Holmes Street and south of Passmore Street is zoned 'General Rural', while land to the north of Matison Street and to the north-east is zoned as 'Residential Development'. Holmes Street, and the interconnections with Matison Street and Passmore Street are zoned as 'Other Regional Roads' under provisions of the Town Planning Scheme.

#### 2.1.3 Assets

Land within the project area has previously been used for rural land use, and as such has been largely cleared of native vegetation. The vegetation within the project area is predominately grassland regrowth, with small plots of trees through the site. Two dwellings remain within the project area, north of the waterway, while there is evidence that several other dwellings have been demolished on other lots further south. The two remaining dwellings will be demolished as part of the proposed development.

Proposed urban development will ultimately increase the critical life and property assets of the site by intensifying the number of occupiers, visitors and built assets across the project area.

The project area does not contain any significant environmental assets, given that it is predominantly cleared and subject to previous grazing land uses.

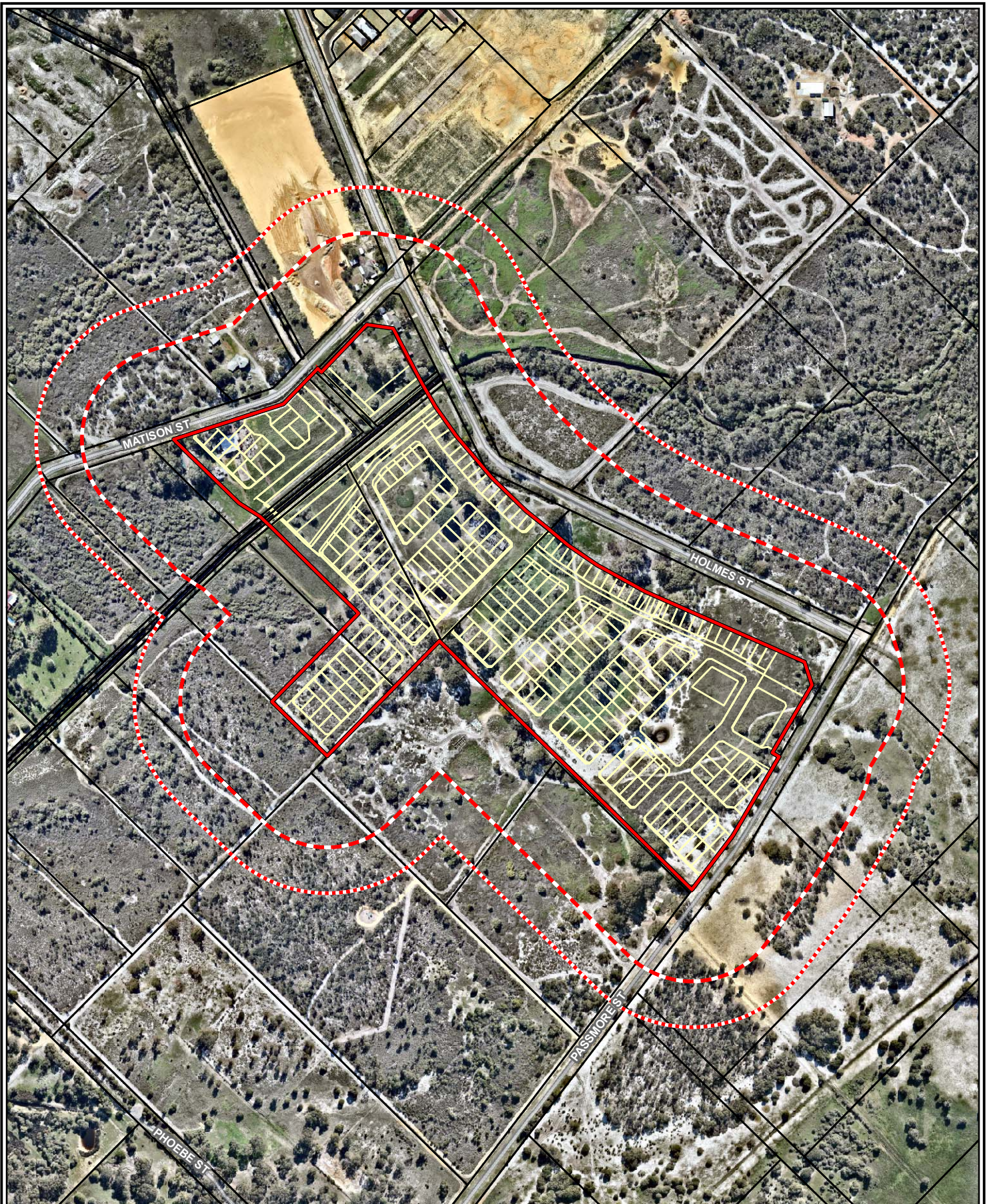
#### 2.1.4 Access

The project area has frontage to all three existing public roads that bound it, namely Matison Street, Holmes Street and Passmore Street. It is noted that Passmore Street, to the south of the project area, doesn't currently connect to Ranford Road to the south-west with a section of the road not yet constructed.

#### 2.1.5 Water Supply

The project area is not connected to reticulated water supply; however, reticulated water supply infrastructure and services will be available through extension from adjacent town main infrastructure and surrounding urban development.

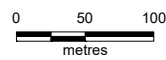




**Legend:**

- Study area
- 100 m wide assessment area
- 150 m wide assessment area
- Cadastral boundary
- Proposed development
- Roads (MRWA)

Scale 1:5,500 at A4



Coord. Sys. GDA 1994 MGA Zone 50



Job No: TBC

Client: Keyclub Holdings Pty Ltd

Version: A

Date: 18-Oct-2019

Drawn By: hsullivan

Checked By: CT

**Keyclub**

**SITE OVERVIEW**

**FIGURE 2**





## 2.2 Existing fire environment

### 2.2.1 Pre-development vegetation

Strategen undertook an assessment of the vegetation within the project area and adjacent 150 m of land on 10 January 2018.

Vegetation was assessed in accordance with the *Visual guide for bushfire risk assessment in Western Australia* (DoP 2016) and *Australian Standard 3959-2009 Construction of Buildings in Bushfire Prone Areas* (AS 3959: SA 2009).

Vegetation within the project area is dominated by unmanaged grassland interspersed with patches of shrubland, scrub and woodland vegetation. This will largely be cleared as part of the proposed development.

The following provides a summary of the site investigation, as depicted in Figure 3 along with the location and direction of site photographs (refer to Appendix 1 for site photographs):

- Class B woodland
- Class D scrub
- Class G grassland
- non-vegetated areas (e.g. roads and buildings)
- low threat vegetation (e.g. managed grassland, managed gardens).

Any non-vegetated areas occupied by roads, dwellings or other infrastructure are excluded from classification under Clause 2.2.3.2 (e) of AS 3959. Any low threat vegetation has been excluded from classification under Clause 2.2.3.2 (f) of AS 3959.

### 2.2.2 Post-development vegetation

The high-density development outcome within the proposed residential development will result in all vegetation being cleared within residential areas post-development. Several areas of proposed POS will be subject to clearing, landscaping and management that will achieve an ongoing low fuel state.

It is anticipated that the existing water course will be revegetated as a drainage POS, with plants species less than 2 m in height, thus is assessed as being Class C shrubland. This approach is also expected to be implemented for a small drainage POS in the southern part of the development, which is to be located adjacent to an area of managed POS. The Class C shrubland classification has been confirmed within the subsequent Landscape Masterplan prepared by Calibre, within which reference is made to the use of sedges and rushes with sparse medium native shrub species. The extent of drainage POS has also been confirmed within the Landscape Masterplan.

Between the project area and Holmes Street is a portion of the subject lots that is to be used a part of the future widening of Holmes Street. This land is under the control of the client and will be managed in a low threat or non-vegetated state until the road widening occurs.

The above information has been used to inform a post-development BAL contour assessment for the project area (refer to Section 2.3).

### 2.2.3 Site topography and slope under vegetation

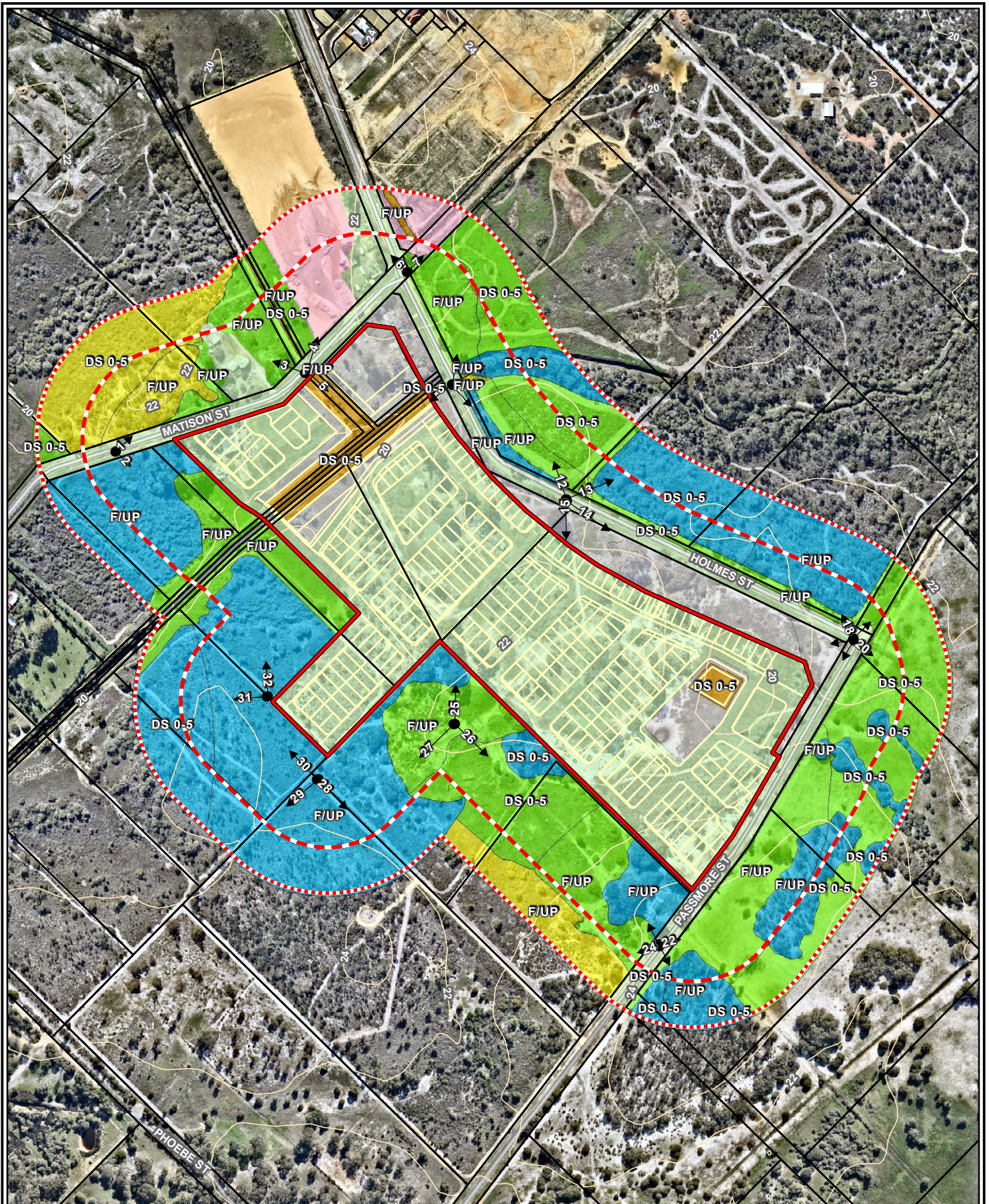
Strategen has assessed site topography and effective slope under classified vegetation in accordance with AS 3959 methodology through assessment of topographic information and on-ground verification.

The project area consists of generally flat to moderately undulating land, with topographic elevation across the site ranging from approximately 24 mAHD (Australian Height Datum) to approximately 21 mAHD. Slopes are less than 5 degrees across the site.

Slope under classified vegetation within the adjacent 150 m is also generally flat to moderately undulating, with slope less than 5 degrees. Consequently, the effective slope beneath the classified vegetation is assessed as being either flat/upslope (0 degrees) or downslope (0–5 degrees).

Effective slope under classified vegetation as described has been used to inform the BAL assessment for proposed development (refer to Section 2.3).

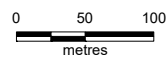




**Legend:**

- Study area
- 100 m wide assessment area
- 150 m wide assessment area
- Cadastral boundary
- Proposed development
- Photo location and direction
- Surface elevation (mAHD)
- Roads (MRWA)
- Class B Woodland
- Class C Shrubland
- Class D Scrub
- Class G Grassland
- Excluded under Clause 2.2.3.2 (e)
- Excluded under Clauses 2.2.3.2 (e) & (f)
- Area to be modified to a non-vegetated or low threat state

Scale 1:5,500 at A4



Coord. Sys. GDA 1994 MGA Zone 50



Job No: TBC

Client: Keyclub Holdings Pty Ltd

Version: A

Date: 18-Oct-2019

Drawn By: hsullivan

Checked By:

**Keyclub**

**VEGETATION CLASS AND EFFECTIVE SLOPE**

**FIGURE 3**





## 2.3 BAL contour assessment

Since classified vegetation has been identified within 150 m of the project area, BAL contour assessment and application of AS 3959 is required to inform future building design, location and construction requirements. This has been undertaken in the form of a BAL contour map, which specifies the indicative acceptable BAL ratings across the project area (Figure 4). BAL contour assessment is based on post-development conditions, which reflect a non-vegetated/low threat managed vegetation status throughout most of the project area.

Method 1 procedure for calculating the BAL (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.

Method 1 BAL calculation for proposed development is outlined in the following subsections. This assessment is considered suitable for the purposes of informing future planning/building stages; however, acceptance of the BAL contour map at future planning/building stages is at the discretion of the City and reassessment of the BAL may be required should there be any significant change in vegetation class extent or once further detail on development layout is known.

### 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

This BAL contour assessment is based on the post-development vegetation class is described in Section 2.2.2 (Figure 3) and consists of Class B woodland, Class D scrub, Class C shrubland and Class G grassland.

### 2.3.3 Effective slope

Effective slope is described in Section 2.2.3 (Figure 3) and consists of primarily of flat/upslope (0°) and downslope (0 - 5°).

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

Strategen has assessed the separation distances, prior to implementation of any risk mitigation measures, between the proposed development and the classified vegetation extent as depicted in Figure 3.

The width of each BAL contour is set in accordance with AS 3959 and reflects the relevant BAL ratings applicable to Class B woodland, Class D scrub, Class C shrubland and Class G grassland, on flat/upslope (0°) and downslope (0° - 5°) as shown on Table 1.

### 2.3.5 Method 1 BAL calculation

Method 1 BAL calculation has been completed for the project area in accordance with AS 3959 methodology (Table 1).

BAL rating gives an indication of the level of bushfire attack (i.e. the radiant heat flux) that may be received by proposed buildings and subsequently informs the standard of building construction required for proposed buildings to potentially withstand such impacts.

Assessed BAL contours are depicted in Figure 4. Land within the project area that is unaffected by a BAL rating on the BAL contour map is considered to be BAL–Low, where there is insufficient risk to warrant specific building construction requirements.

Table 1: Method 1 BAL calculation

Vegetation class	Effective slope	BAL contour width (m)	BAL rating	Comment
Class B woodland	All up-slopes or flat land (0°)	<10	BAL–FZ	No development is proposed in this area.
		10–<14	BAL–40	No development is proposed in this area.
		14–<20	BAL–29	Development may occur in this area.
		20–<29	BAL–19	Development may occur in this area.
		29–<100	BAL–12.5	Development may occur in this area.
Class B woodland	Downslope (0° - 5°)	<13	BAL–FZ	No development is proposed in this area.
		13–<17	BAL–40	No development is proposed in this area.
		17–<25	BAL–29	Development may occur in this area.
		25–<35	BAL–19	Development may occur in this area.
		35–<100	BAL–12.5	Development may occur in this area.
Class D scrub	All up-slopes or flat land (0°)	<10	BAL–FZ	No development is proposed in this area.
		10–<13	BAL–40	No development is proposed in this area.
		13–<19	BAL–29	No development is proposed in this area.
		19–<27	BAL–19	No development is proposed in this area.
		27–<100	BAL–12.5	Development may occur in this area.
Class D scrub	Downslope (0° - 5°)	<11	BAL–FZ	No development is proposed in this area.
		11–<15	BAL–40	No development is proposed in this area.
		15–<22	BAL–29	No development is proposed in this area.
		22–<31	BAL–19	No development is proposed in this area.
		31–<100	BAL–12.5	Development may occur in this area.
Class C shrubland	Downslope (0° - 5°)	<7	BAL–FZ	No development is proposed in this area.
		7–<10	BAL–40	No development is proposed in this area.
		10–<15	BAL–29	No development is proposed in this area.
		15–<22	BAL–19	No development is proposed in this area.
		22–<100	BAL–12.5	Development may occur in this area.
Class G grassland	All up-slopes or flat land (0°)	<6	BAL–FZ	No development is proposed in this area.
		6–<8	BAL–40	No development is proposed in this area.
		8–<12	BAL–29	No development is proposed in this area.
		12–<17	BAL–19	No development is proposed in this area.
		17–<50	BAL–12.5	Development may occur in this area.
Class G grassland	Downslope (0° - 5°)	<7	BAL–FZ	No development is proposed in this area.
		7–<9	BAL–40	No development is proposed in this area.
		9–<14	BAL–29	No development is proposed in this area.
		14–<20	BAL–19	No development is proposed in this area.
		20–<50	BAL–12.5	Development may occur in this area.

## 2.4 Identification of any bushfire hazard issues

Given the rural land use that pervades the local area, significant tracts of vegetation in close proximity the project area currently exist to the north-west, west south and south-east. Vegetation is typically composed of grassland on rural lots although several significant plots of remnant woodland vegetation exist to the west and south-east of the project area. Although there are fire runs to the south-west and south-east that 2 to 3 km long through degraded pastoral land, fire runs to the east and west are approximately 800 m long. The lengths of these fire runs are sufficient to achieve steady state bushfire behaviour and could pose a risk to the project area if not appropriately treated. It is worth noting that new developments appear to be commencing to the north of the project area. These developments will result in further clearing and fragmentation of the bushfire hazard, which will assist in reducing the bushfire impact on the project area.

The project area will be almost entirely cleared for proposed development. There will be several POS areas that will contain onsite landscaping in a low-threat condition, therefore minimising any bushfire risk within the project area. Only the waterway near the northern boundary and a small POS area in the southern part of the project area, are to be revegetated such that they require classification.

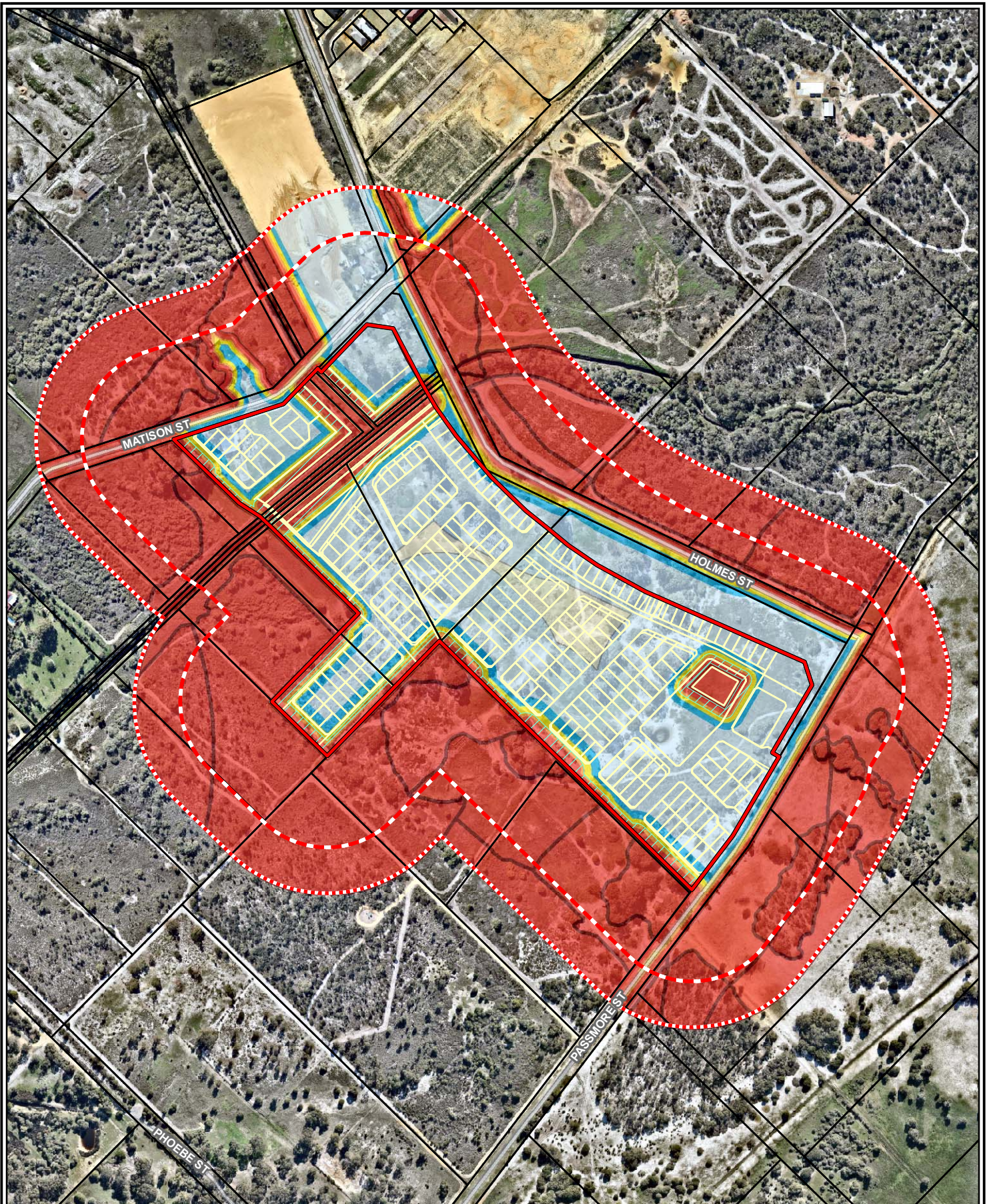
New and existing roads along the interface between the proposed residential development within the project area, and adjacent classified vegetation, will provide sufficient separation to ensure the risk can be managed on each residential lot. These road reserves, including Matison Street, Homes Street and Passmore Road, will need to be adequately managed on an ongoing basis, to ensure the vegetation can continue to be excluded as low threat.

If the development is to be staged, vehicular access arrangements in the short, medium and long-term duration of development will need to ensure that all occupiers and visitors are provided with at least two vehicular access routes at all times. Additionally, vegetation clearing throughout development staging will play an important role in managing the bushfire risk posed by on-site temporary vegetation during roll out of individual development stages. This is discussed as a key management measure in Sections 3.1.1 and 3.1.2.

On the basis of the above information, Strategen considers that the bushfire hazards within and adjacent to the project area and the associated bushfire risk is readily manageable through standard management responses and compliance with acceptable solutions outlined in the Guidelines and AS 3959. These management measures will need to be factored in to subdivision design 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.

Demonstration of compliance with the relevant requirements of SPP 3.7, the Guidelines and AS 3959 at future planning stages will predominantly depend on the developer's ability to coordinate the timing and staging of clearing and development works within the project area with those developments proposed on adjacent landholdings in the aim of avoiding unnecessary bushfire impacts from temporary vegetation.





<b>Legend:</b> Study area 100 m wide assessment area 150 m wide assessment area Cadastral boundary Indicative APZ Classified vegetation Proposed development Roads (MRWA)	<b>BAL contours</b> BAL FZ BAL 40 BAL 29 BAL 19 BAL 12.5 BAL LOW	Scale 1:5,500 at A4  0 50 100 metres	<b>Keyclub</b> <b>BAL CONTOUR MAP</b>
		Coord. Sys. GDA 1994 MGA Zone 50 	Job No: TBC Client: Keyclub Holdings Pty Ltd
		Version: A Drawn By: hsullivan	Date: 18-Oct-2019 Checked By: CT



### 3. Bushfire management measures

Strategen has identified a range of bushfire management measures that will need to be incorporated into development design and construction as part of future planning stages to ensure bushfire planning requirements for the project area achieve compliance with the Guidelines. It should be noted that these measures are being provided at the strategic level as the proposed subdivision plans are indicative only, and future updates to this BMP will need to be prepared to align with future planning stages on provision of greater levels of detail.

Based on the preliminary development design information currently supplied, this BMP demonstrates capacity within the project area and a commitment to implement all bushfire management measures identified to achieve compliance with the Guidelines in subsequent planning stages. Bushfire planning requirements at future planning stages are discussed further in Section 5.

#### 3.1 Asset Protection Zones (APZs)

APZs will be implemented at all interfaces where proposed development abuts classified vegetation to ensure future assets are afforded an appropriate level of low fuel defensible space and to prevent development in high risk areas such as BAL-FZ and BAL-40.

The minimum width of the APZs is required to be sufficient enough for proposed development areas to achieve a rating of BAL-29 or lower, which will meet compliance with acceptable solutions A1.1 and A2.1. The potential range of minimum APZ widths relevant to the project area are provided in Table 1 and the final alignment and width of APZs will depend on the class and effective slope of the interfacing vegetation. An indicative APZ has been depicted on Figure 4, and based on the indicative lot layout currently supplied and preliminary landscaping philosophy, all proposed dwellings are in areas of BAL-29 or less.

Management measures for implementing staged development in any areas subject to BAL-FZ and BAL-40 will be addressed as part of a future BMP or BMP addendum to be prepared at the subdivision stage.

The APZs are low fuel areas and are required to be maintained on a regular and ongoing basis by proponents at a fuel load less than 2 t/ha to achieve a low threat minimal fuel condition status all year. Overstorey trees can be retained to some extent within the APZ provided all flammable material including understorey grasses, weeds, shrubs and scrub are removed from the fuel profile, essentially creating a managed parkland cleared landscape, which would result in a diminishing level of radiant heat, ember attack and fire rate of spread at the dwelling interface.

APZs are required to meet the criteria for low threat vegetation managed in a minimal fuel condition in accordance with Clause 2.2.3.2 (f) of AS 3959 and this can be achieved most effectively through use of one or a combination of the following:

- existing/proposed sealed roads and managed road verges (roads are most effective for use within an APZ as they also provide public and emergency access at the vegetation interface)
- regularly managed/landscaped lawns, gardens or POS
- other sealed areas including driveways and car parks
- building setbacks within lots consisting of managed/paved land.

Requirements under the Guidelines for APZs include:

- Fine Fuel Load: combustible dead vegetation matter less than 6 mm in thickness reduced to and maintained at an average of 2 t/ha
- Trees (> 5 m in height): lower branches should be removed to a height of 2 m above the ground, canopy cover should be less than 15% with tree canopies at maturity well spread to at least 5 m apart as to not form a continuous canopy
- Shrubs (0.5 m to 5 m in height): should not be located under trees, should not be planted in clumps greater than 5 m<sup>2</sup> in area, clumps of shrubs should be separated from each other by at least 10 m



- Groundcovers (<0.5 m in height): can be planted under trees but must be properly maintained to remove dead plant material and any parts within 2 m of a structure
- Grass: should be managed to maintain a height of 10 cm or less.

### 3.1.1 On-site staging buffers

Development within the project area is likely to be subject to staging.

Vegetation clearing in advance may need to occur in line with staged subdivision application to ensure habitable building construction is not inhibited by a temporary vegetation extent located within adjacent stages yet to be cleared. This can be achieved by ensuring each approved stage subject to construction is surrounded by a minimum 100 m wide, on-site cleared or low threat buffer from any classified vegetation prior to development (not including vegetation proposed to be retained). Once the buffers are created, they will need to be maintained on a regular and ongoing basis at a fuel load less than 2 t/ha to achieve a low threat minimal fuel condition all year round until such time that the buffer area is developed as part of the next development stage. This will assist in managing the current on-site grassland and scrub hazards in proximity to proposed development during the staging process.

This BMP will be reviewed and updated as required at subsequent planning stages, at which time any changes to development design and clearing extent can be considered and addressed.

### 3.1.2 Temporary buffers to adjacent landholdings

Should development stages be constructed prior to removal of bushfire hazards on adjoining landholdings, then one or a combination of the following options will need to be implemented prior to construction to ensure development is not situated within BAL-FZ or BAL-40 areas and a sufficient APZ can be established:

- delay development in those areas subject to BAL-FZ and BAL-40 until such time that the adjacent hazard is removed and a rating of BAL-29 or lower can be achieved for all proposed lots
- establish a temporary APZ within and along the boundary of the project area at the vegetation interface to enable development to occur in areas of BAL-29 or lower and ensure development is excluded within areas of BAL-FZ and BAL-40 (the APZ is to be managed on a regular basis until such time that the adjacent hazard is removed [this measure is intrinsically linked to the above point]).

These measures will be confirmed following confirmation of proposed lot layout and development staging provisions and will be documented in an addendum to this BMP to accompany future subdivision applications where appropriate.

### 3.1.3 Fuel management within on-site POS

All areas of proposed managed POS within the project area will be subject to landscaping and ongoing management that will achieve a low threat minimal fuel condition all year round.

The required works may include slashing of understorey grasses and weeds on a regular and ongoing basis to maintain fuel loads at less than 2 t/ha and achieve a low threat minimal fuel condition all year round in accordance with exclusion Clause 2.2.3.2 (f) under AS3959.

Landscaping plans to be developed at future planning stages will need to reflect the bushfire management measures required under future revised BMPs.

### 3.1.4 Fuel management within Holmes Street reserve

Holmes Street is to be realigned in the future which will incorporate the portions of Lots 8, 9 and 1792 Holmes Street, to the east of the proposed noise wall. It has been assumed that vegetation directly to the east of the noise wall will be managed in a low threat condition, and as such, will not have a BAL impact. To achieve this outcome, the clearing and landscaping of this land to achieve exclusion in accordance as either non-vegetated or low threat vegetation, in accordance with AS 3959 Clauses 2.2.3.2 (e) and (f) will be undertaken by the developer or landowner. Ongoing management in a non-vegetated or low threat condition will be by the developer or landowner until this land is ceded to the City or Main Roads, at which time, ongoing management will be conducted by the new landowner. Management of the land will continue until such time as the bushfire hazard is removed as part of the realignment, although should a verge remain, it is assumed this would be managed as low threat vegetation.

## 3.2 Increased building construction standards

The on-site vegetation extent is proposed to be cleared to enable development of a significant urban built footprint amongst areas of landscaped/managed POS. Therefore, the predominant BAL impact on future assets will be around the perimeter of the project area in response to the adjacent temporary vegetation extent. Measures will need to be put in place (such as those outlined in Sections 3.1.1 and 3.1.2) to ensure all areas of BAL-FZ and BAL-40 are avoided so that a rating of BAL-29 or lower can be achieved with provision of a suitable APZ where required.

Once proposed lot layout is confirmed at the subdivision stage, as well as a suitable approach to manage the risk from adjacent bushfire hazard areas, BAL contours will need to be assessed to inform the indicative BAL impact over the site, as well as the necessary APZ separation requirements for proposed development areas. This process will inform those lots that require increased building construction standards.

The development design process will ensure a rating of BAL-29 or lower is achieved by incorporating the necessary APZs discussed in Section 3.1, which will meet the necessary performance criteria of Element 1 and Element 2 of the Guidelines. BAL contours and APZs will be depicted in an addendum to this BMP to accompany future subdivision applications where appropriate.

## 3.3 Vehicular access

### 3.3.1 Public and internal access

The indicative public road network outlined in the LSP (Figure 1) is appropriate for the purposes of satisfying the intent of Element 3 of the Guidelines at this strategic planning stage. There are suitable linkages are proposed with the existing road network and future development on adjacent landholdings, and proposed cul-de-sacs appear to be sufficiently short and provided with a turnaround.

The ultimate proposed vehicular access network will provide through access to the existing and proposed surrounding public road network, including Matison Street, Homes Street and Passmore Street, which in conjunction with potential future road linkages on adjacent landholdings to the west, ensures egress and access is available to at least two different destinations.

Given that development might be staged, vehicular access arrangements in the short, medium and long term duration of development will need to ensure that all occupiers and visitors are provided with at least two vehicular access routes at all times.

Any public roads, cul-de-sacs, private driveways longer than 50 m and emergency access ways proposed at subsequent planning stages will need to comply with technical requirements of the Guidelines, as outlined in Table 2. The detailed development design undertaken at future planning stages will seek to avoid inclusion of any battle-axe access legs.

The above vehicular access components of proposed development will be confirmed as part of subdivision design and demonstration of compliance with the relevant acceptable solutions for Element 3 of the Guidelines will be documented in a brief addendum to this BMP to accompany future subdivision applications where appropriate.

Table 2: Vehicular access technical requirements

Technical requirement	Public road	Cul-de-sac	Private driveway	Emergency access way
Minimum trafficable surface (m)	6*	6	4	6*
Horizontal distance (m)	6	6	6	6
Vertical clearance (m)	4.5	N/A	4.5	4.5
Maximum grade <50 m	1 in 10	1 in 10	1 in 10	1 in 10
Minimum weight capacity (t)	15	15	15	15
Maximum crossfall	1 in 33	1 in 33	1 in 33	1 in 33
Curves minimum inner radius	8.5	8.5	8.5	8.5
* Refer to E3.2 Public roads: Trafficable surface				

Source: WAPC 2017

### 3.3.2 Individual lot firebreaks

The City of Gosnells annual firebreak notice (Appendix 2) includes the following firebreak requirements for residential land (i.e. land not zoned as 'General Rural' or 'Special Rural'):

- at all times throughout the year, all owners or occupiers of land zoned other than 'General Rural' or 'Special Rural' under the Scheme are required to clear and maintain the land free of all flammable matter to a height no greater than 10cm.

Annual firebreak notice requirements apply to the existing landowner and prospective landowners following land transfer unless a firebreak variation is sought and approved by City of Gosnells.

## 3.4 Reticulated water supply

Proposed development areas will be provided a reticulated water supply. 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.

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.

## 3.5 Additional measures

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

- BMP and BAL assessment at future planning stages:** Proposed management measures are based on information at the strategic planning stage. Consequently, a revised BMP(s), including detailed BAL contour assessment based on lot layout, will be required for proposed development at an appropriate future planning stage (such as subdivision application) to ensure the management measures and separation distances are consistent with final development design.

2. Notification on Title: Strategen recommends that the abovementioned revised BMP(s) include a requirement for notification to be placed on title for all lots (either through condition of subdivision or other head of power) to ensure all landowners/proponents and prospective purchasers are aware that their lot is subject to an approved BMP and BAL assessment, however, since the lot is situated within a designated bushfire prone area (at creation of title), the BAL for proposed buildings may, at the discretion of City of Gosnells, need to be confirmed at the building permit stage.
3. Vulnerable land uses: Bushfire Emergency Evacuation Plans will need to be prepared for any vulnerable land uses (such as schools or aged care facilities) that are located in areas subject to BAL-12.5 to BAL-29 to address requirements of SPP 3.7 Policy Measure 6.6. This is to be completed at the development application or building permit stage once an adequate level of detail is available to inform such plan. Strategen note that currently no vulnerable land use has been nominated as part of this development, however should this change, the requirements outlined above should be reviewed.
4. High-risk land uses: Bushfire Risk Management Plans will need to be prepared for any high-risk land uses (such as service stations) that are located in areas subject to BAL-12.5 to BAL-29 to address requirements of SPP 3.7 Policy Measure 6.6. This is to be completed at the development application or building permit stage once an adequate level of detail is available to inform such plan. Strategen note that currently no high-risk land use has been nominated as part of this development, however should this change, the requirements outlined above should be reviewed.
5. Compliance with the City of Gosnells annual firebreak notice: all parties are to comply with the current City of Gosnells annual firebreak notice (Appendix 2).

## 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 proposal to which policy measure 6.2 applies is to be accompanied by the following information prepared 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  
**(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.

This information can be provided in the form of a Bushfire Management Plan or an amended Bushfire Management Plan where one has been previously endorsed.

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 at the strategic planning stage 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 at future planning stages meet the intent of each element of the bushfire protection criteria.

Table 3: 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.	A1.1 Development location 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 Sections 2.3 and 3.1 and Figure 4, which demonstrate that all future development will be able to avoid areas of BAL-FZ/40. This will be confirmed as part of a BMP to accompany future subdivision applications where appropriate.	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.	A2.1 Asset Protection Zone Every building is surrounded by an APZ, depicted on submitted plans, which meets detailed requirements (refer to the Guidelines for detailed APZ requirements).	Refer to Section 3.1, which demonstrates that an APZ will be provided at all development-vegetation interfaces based on either post-development vegetation extent within the project area or staged building exclusions tied to vegetation clearing occurring on adjacent lots. This will be confirmed as part of the revised BMP to accompany subdivision applications.	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.	A3.1 Two access routes 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.	Refer to Section 3.3.1, which demonstrates that at least two different vehicular access routes will be provided for development areas at all times via the existing access network, the proposed local/internal access network and if required temporary emergency access ways (to be identified at future planning stages).	The measures proposed are considered to comply and meet the intent of Element 3 Vehicular access.
		A3.2 Public road A public road is to meet the requirements in Table 4, Column 1.	Refer to Section 3.3.1, which demonstrates that all proposed public roads will be designed to meet minimum technical requirements of the Guidelines as outlined in Table 2.	
		A3.3 Cul-de-sac (including a dead-end road) 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 (refer to the Guidelines for detailed cul-de-sac requirements).	Refer to Section 3.3.1, which demonstrates that if any cul-de-sacs are proposed at future planning stages they will be designed to meet minimum requirements of the Guidelines as outlined in Table 2.	
		A3.4 Battle-axe Battle-axe access leg 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 (refer to the Guidelines for detailed battle-axe requirements).	N/A No battle-axes are proposed as part of the development.	

		<p>A3.5 Private driveway longer than 50 m A private driveway is to meet detailed requirements (refer to the Guidelines for detailed private driveway requirements).</p>	<p>Refer to Section 3.3.1, which demonstrates that any private driveways longer than 50 m proposed at future planning stages will be designed to meet minimum requirements outlined in Table 2.</p>	
		<p>A3.6 Emergency access way 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 (refer to the Guidelines for detailed EAW requirements).</p>	<p>Refer to Section 3.3.1, which demonstrates that if any temporary emergency access ways are proposed at future planning stages they will be designed to meet minimum requirements of the Guidelines as outlined in Table 2.</p>	
		<p>A3.7 Fire service access routes (perimeter roads) 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 fire fighting purposes. Fire service access routes are to meet detailed requirements (refer to the Guidelines for detailed fire service access route requirements).</p>	<p>N/A No fire service access routes are proposed as part of the development.</p>	
		<p>A3.8 Firebreak width 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>Refer to Section 3.3.2, which demonstrates that no firebreaks will be required for individual residential lots. However, should any firebreaks be required for larger lots (such as POS or the school site lot) these will meet requirements of the Guidelines and the City of Gosnells annual firebreak notice.</p>	
<p><b>Element 4: Water</b></p>	<p>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>	<p>A4.1 Reticulated areas 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>Refer to Section 3.4, which demonstrates that the project area will be provided a reticulated water supply and network of hydrants in accordance with local water authority, City and DFES requirements.</p>	<p>The measures proposed are considered to comply and meet the intent of Element 4 Water.</p>
		<p>A4.2 Non-reticulated areas Water tanks for fire fighting 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>N/A. The proposed development is within a reticulated area.</p>	
		<p>A4.3 Individual lots within non-reticulated areas (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>N/A. The proposed development is within a reticulated area.</p>	

## 5. Future bushfire requirements

Development within the project area may occur over a long term timeframe. The below information provides guidance on bushfire assessment and planning requirements specific to each future planning stage.

### 5.1 Statutory requirements

Applicable legislation, standards, supporting guidelines and local government provisions that determine or influence bushfire requirements for future planning stages within the project area include:

- *Bush Fires Act 1954*
- State Planning Policy 3.7 *Planning in Bushfire Prone Areas* (SPP 3.7; WAPC 2015)
- *Planning and Development (Local Planning Schemes) Regulations 2015* (deemed planning provisions)
- *Building Act 2011* and *Building Regulations 2012* (Building Regulations)
- Building Code of Australia (BCA)
- Australian Standard AS 3959-2009 *Construction of Buildings in Bushfire Prone Areas* (AS 3959-2009: SA 2009)
- *Guidelines for Planning in Bushfire Prone Areas* (the Guidelines; WAPC 2017)
- Local Government annual firebreak notices.

### 5.2 Planning stage requirements

#### 5.2.1 Subdivision applications

SPP 3.7 policy measure 6.4 requires subdivision applications to be accompanied by the following information in accordance with the Guidelines:

1. A BAL Contour Map or BAL assessment to determine the indicative acceptable BAL ratings across the subject site.
2. The identification of any bushfire hazard issues arising from the BAL Contour Map.
3. An assessment against the bushfire protection criteria requirements demonstrating compliance within the boundary of the subdivision site.

This information can be provided in the form of a BMP or an amended BMP where one has been previously endorsed.

#### 5.2.2 Development applications

Development applications include any application to carry out development or to change land use, but excludes applications for single houses or ancillary dwellings on lots less than 1,100 m<sup>2</sup>.



SPP 3.7 policy measure 6.5 requires development applications to be accompanied by the following information:

1. A BAL assessment.  
or  
A BAL Contour Map that has been prepared for an approved subdivision clearly showing the indicative acceptable BAL rating across the subject site.
2. The identification of any bushfire hazard issues arising from the BAL Contour Map or BAL assessment.
3. An assessment against the bushfire protection criteria requirements demonstrating compliance within the boundary of the development site.

This information can be provided in the form of a BMP or an amended BMP where one has been previously endorsed.

Development applications for vulnerable land uses where BAL-12.5 to BAL-29 applies will not be supported unless accompanied by a BMP and emergency evacuation plan jointly endorsed by the relevant local government and DFES. Similarly, any high-risk land uses will require a bushfire risk management plan to accompany the BMP.

Vulnerable as defined under the Guidelines include hospitals, nursing homes and aged care facilities, childcare centres, educational establishments and tourist accommodation. High-risk land is also defined under the Guidelines and typically include services stations and other facilities that have bulk storage of hazardous or flammable materials.

### 5.2.3 Building permits

For most building works a building permit is required and the permit authority will be the relevant local government. The permit authority is also responsible for enforcement and dealing with non-compliance in relation to applicable building standards.

For single houses or ancillary dwellings on sites 1,100 m<sup>2</sup> or greater, other habitable buildings<sup>1</sup> (other than a single house or ancillary dwelling) or specified buildings<sup>2</sup> in Bushfire Prone areas, under the deemed planning provisions a BAL assessment is required, where a BAL Contour Map does not exist from a previous approved proposal. If the BAL assessment or BAL Contour Map identifies the development site as BAL-40 or BAL-FZ, a development application and planning approval is required.

For development on sites less than 1,100 m<sup>2</sup> in Bushfire Prone areas the bushfire construction requirements under the Building Act and BCA may still apply, which also includes undertaking a BAL assessment, where a BAL Contour Map does not exist from a previous approved proposal.

Building permit applications must demonstrate compliance with applicable BCA bushfire construction requirements.

The BCA bushfire construction requirements only apply to Class 1a (single dwelling), Class 1b (accommodation, grouped dwellings), Class 2 (apartments), Class 3 (accommodation, schools, health-care, detention centre) buildings, other structures and decks (Class 10a) associated with these buildings and major alterations/additions to residential buildings.

<sup>1</sup> Habitable building as defined under SPP 3.7 means a permanent or temporary structure that is fully or partially enclosed and has at least one wall of solid material and a roof of solid material and is used by people for living, working, studying or being entertained.

<sup>2</sup> Specified building means a structure identified in a local planning scheme as a building to which the deemed provisions apply.

The bushfire construction provisions of the BCA do not apply to Class 4 - Class 9 buildings (mixed use, commercial, industrial buildings or public facilities). If planning approval is required for this type of development, the planning process will apply the bushfire protection criteria to ensure that the optimal outcome is achieved for bushfire protection, such as appropriate siting of buildings, provision of water supply etc. For Class 4 – Class 9 buildings, applicants have the discretion to utilise any or all of the elements of AS3959-2009 in the construction of buildings.

### 5.3 Adoption of proposed management measures

Proposed management measures identified in this BMP are based on information at the strategic planning stage. Consequently, a revised BMP(s), including revised BAL contour assessment and confirmation of the proposed management measures, will be required for proposed development at an appropriate future planning stage (such as at each future stage of subdivision application) to ensure the management measures are consistent with the final development proposal.

The above revised BMP(s) will also need to include a bushfire compliance table to drive implementation of all bushfire management works at the subdivision/development and building stages.

As none of the proposed management measures will be subject to implementation at the strategic planning stage, Table 4 below provides a summary of the management measures to be adopted and subsequently implemented via the revised BMP(s) to be prepared at future planning stages.

Table 4: Bushfire management measures to be adopted via revised BMP(s)

BMP Section	Management measure
Section 3.1	Identification of APZs to ensure no habitable buildings are located in BAL-40 or BAL-FZ
Section 3.1.1	Creation and maintenance of on-site staging buffers (if required)
Section 3.1.2	Confirmation of how bushfire management will be addressed with regards to bushfire hazards on adjacent landholdings, including temporary quarantining of lots (where required)
Section 3.1.3	Ongoing management of proposed POS to achieve minimal low fuel state
Section 3.1.4	Creation of non-vegetated or low threat vegetation land within future Holmes Street road reserve to east of noise wall (within Lots 8, 9 and 1792 Holmes St) to ensure no BAL impact on proposed development from this land. It is anticipated the non-vegetated or low threat vegetation condition will be created by the developer or private landowner, with ongoing management to be by developer or private landowner until ceded to the City or Main Roads, at which time they will assume management responsibilities
Section 3.2	Undertake a BAL contour assessment to ensure that all development can achieve a maximum BAL-29 rating under AS 3959, with all dwellings within 100 m of post-development classified vegetation (or 50 m of Class G grassland) to be constructed in accordance with AS 3959
Section 3.3.1	All public roads, any cul-de-sacs, private driveways longer than 50 m and emergency access ways to be constructed in accordance with technical requirements of the Guidelines
Section 3.3.1	Local access network to provide occupiers with at least two vehicular access routes, including during development staging
Section 3.3.2	Firebreaks to be required as per City of Gosnells annual firebreak notice
Section 3.4	Provision of emergency water supply in accordance with water authority, DFES and City technical requirements
Section 3.5	Notification to be placed on Title on lots within bushfire prone areas at subdivision stage
Section 3.5	Should there be any proposed vulnerable or high-risk land uses at development application stage, prepare a bushfire emergency evacuation plan (for vulnerable land uses) or a bushfire risk management plan (for high risk land uses) in accordance with the Guidelines
Section 3.5	Compliance required with the City of Gosnells annual firebreak order outlined in Appendix 2

## 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>.
- Department of Planning (DoP) 2016, *Visual guide for bushfire risk assessment in Western Australia*, Department of Planning, Perth, WA.
- 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*, Version 1.2 August 2017, Western Australian Planning Commission, Perth.

## Appendix 1

### Site photos





Photo 1: Class D scrub



Photo 2: Low threat and non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959 in foreground; Class B woodland



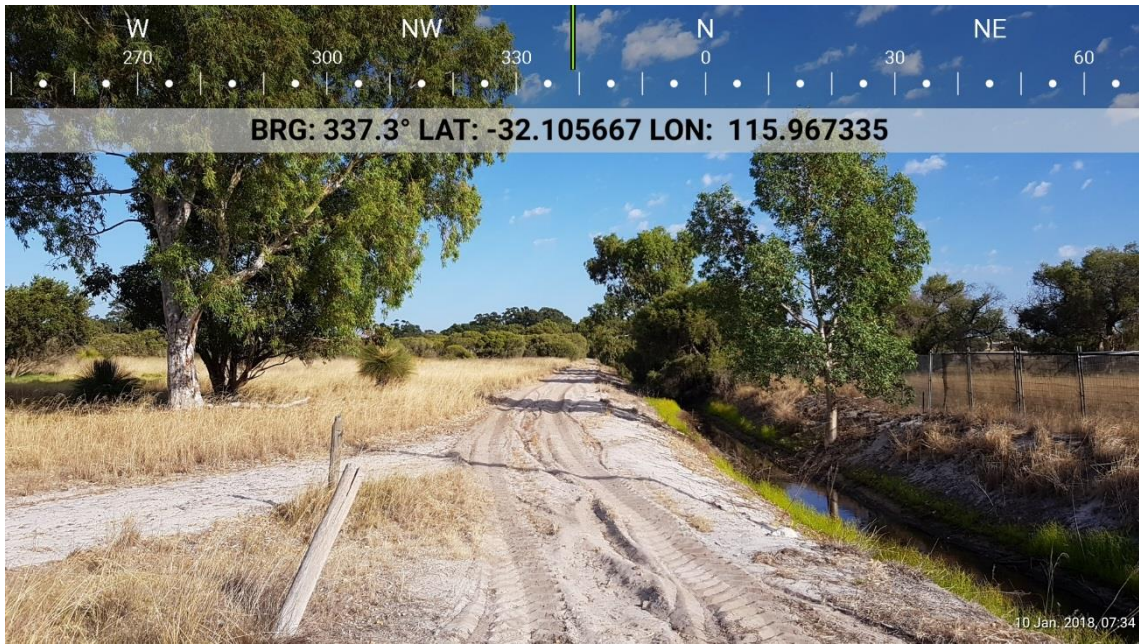


Photo 3: Class C shrubland (waterway); Class G grassland



Photo 4: Low threat and non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959 in centre and right; Class G grassland





Photo 5: Class C shrubland (waterway); onsite Class G grassland to be cleared as part of development



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





Photo 7: Non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) of AS 3959 on far left; Class G grassland

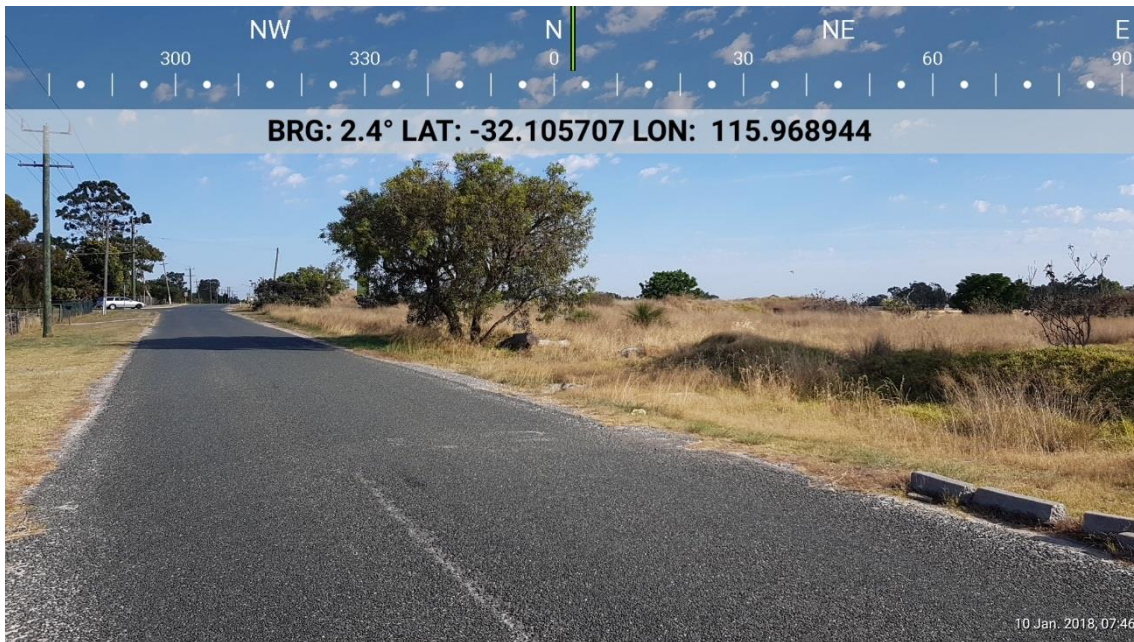


Photo 8: Low threat and non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959 in centre; Class G grassland on right



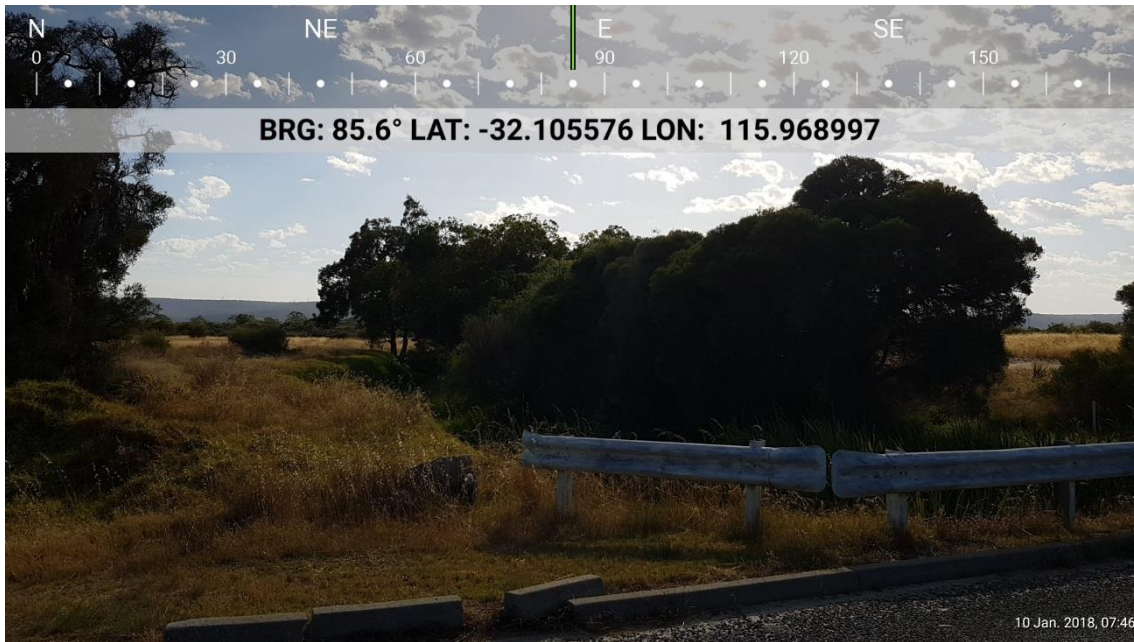


Photo 9: Low threat and non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959 in foreground; Class D scrub (waterway foreground); Class B woodland and Class G grassland in background



Photo 10: Low threat and non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959 in centre; Class B woodland on left; onsite Class G grassland and Class B woodland to be cleared as part of development



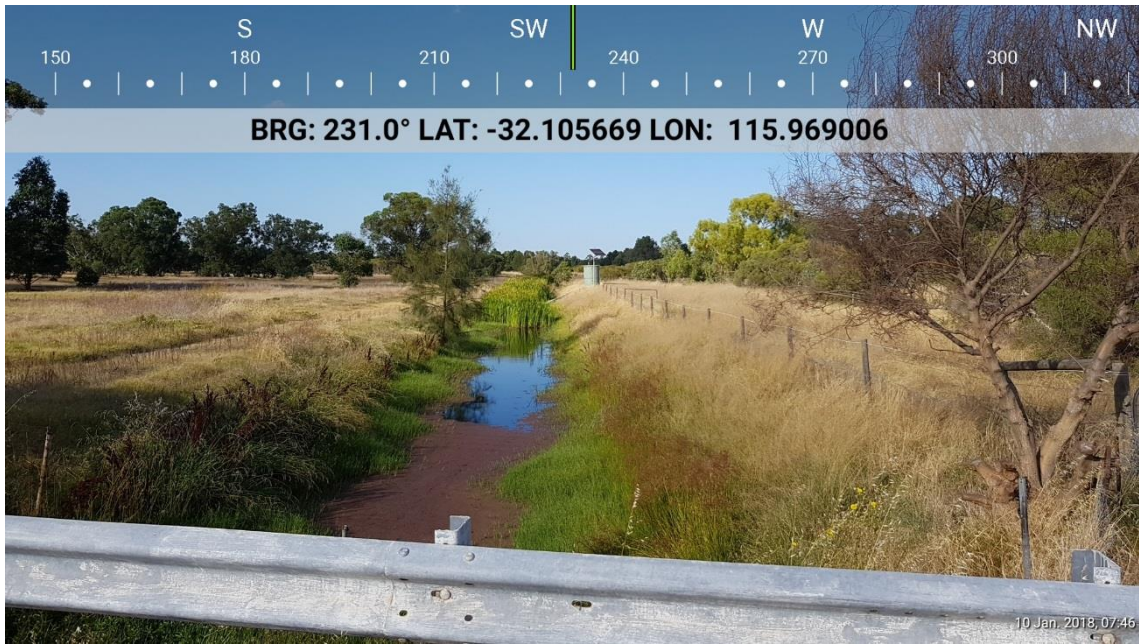


Photo 11: Class C shrubland (waterway) in centre; onsite Class G grassland and Class B woodland to be cleared or made into managed POS as part of development



Photo 12: Class G grassland and Class B woodland in background





Photo 13: Class G grassland and Class B woodland in background



Photo 14: Low threat and non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959 in centre; Class G grassland and Class B woodland on left; onsite Class G grassland and Class B woodland to be cleared as part of development





Photo 15: Low threat and non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959 in centre; onsite Class G grassland and Class B woodland to be cleared as part of development



Photo 16: Low threat and non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959 in centre; Class G grassland and Class B woodland on left; onsite Class G grassland and Class B woodland to be cleared as part of development



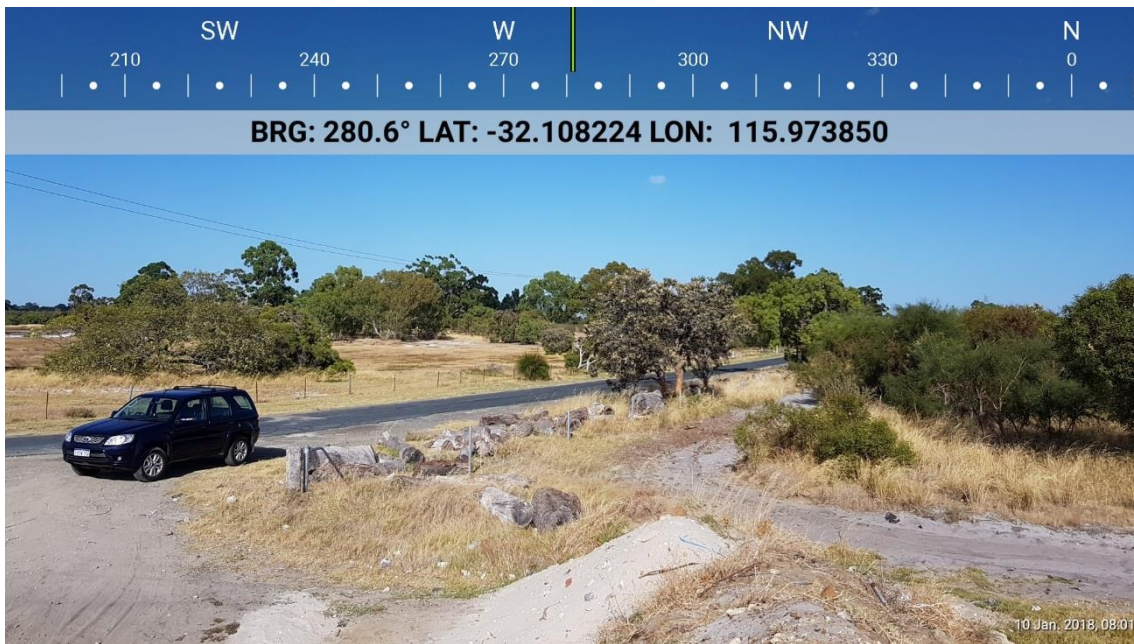


Photo 17: Low threat and non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959 in centre; Class B woodland on foreground right; onsite Class G grassland and Class B woodland in background to be cleared as part of development



Photo 18: Class G grassland and Class B woodland





Photo 19: Class G grassland and Class B woodland in background



Photo 20: Class G grassland and Class B woodland





Photo 21: Class G grassland and Class B woodland



Photo 22: Low threat and non-vegetated areas excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959 on left; Class G grassland and Class B woodland on right





Photo 23: Class G grassland and Class B woodland



Photo 24: Class G grassland and Class D scrub





Photo 25: Class G grassland and Class B woodland



Photo 26: Class G grassland and Class B woodland





Photo 27: Class G grassland and Class B woodland



Photo 28: Class B woodland





Photo 29: Class B woodland



Photo 30: Class B woodland





Photo 31: Class B woodland



Photo 32: Class B woodland

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



# Annual Fire Hazard Reduction Notice

## *Bush Fires Act 1954 Section 33(1)*

To prevent bush fires and to minimise the spread of a bush fire, all owners and occupiers of land within the City's district are required to comply with the requirements of this Annual Fire Hazard Reduction Notice.

**For the purposes of this Notice, flammable matter includes, but is not limited to, vegetation (except for living trees, shrubs, plants and lawns under cultivation), prunings, cardboard, wood, paper, general rubbish and any other combustible material.**

### 1. Owners or occupiers of land zoned 'General Rural' or 'Special Rural'

On or before 30 November each year, all owners or occupiers of land zoned 'General Rural' or 'Special Rural' under the City of Gosnells Town Planning Scheme No. 6 are required to:

- a. Clear and maintain the land free of all flammable matter to a height no greater than 10cm; or
- b. Maintain a mineral earth firebreak immediately inside all external boundaries of each lot on the land and maintain a mineral earth firebreak within 20m of all haystacks and stockpiled flammable matter.

Mineral earth firebreaks must be continuous (no dead ends) and maintained to a minimum standard of 3m wide by 4m high (vertical clearance) so as to provide unimpeded access for emergency vehicles. Driveways must also be maintained to these standards.

Firebreaks are intended to provide safe access on your property for emergency vehicles and to ensure fire does not travel under the vehicles or underfoot.

**Note:** The firebreaks and requirements set out above must be maintained up to and including 30 April in the following year.

### 2. Owners or occupiers of all other land, which is not zoned 'General Rural' or 'Special Rural'

At all times throughout the year, all owners or occupiers of land zoned other than 'General Rural' or 'Special Rural' under the Scheme are required to clear and maintain the land free of all flammable matter to a height no greater than 10cm.

### Permission needed to vary requirements

If, due to the topography or other constraints of your land, you are unable to adhere to the requirements set out in this Notice, you may apply in writing to the City no later than 1 November each year for permission to provide firebreaks in alternative locations or take alternative measures.

**Unless and until permission in writing is granted by the City, you shall comply with the requirements of this Notice.**

### All land owners

Further to the above minimum requirements, the landowner may receive a separate written notice, sent to the address shown on the City of Gosnells rates record, requiring additional works which may be considered necessary by an Authorised Officer of the City.

### Penalty for non-compliance

Failing to comply with the requirements of this Notice is an offence under the *Bush Fires Act 1954 (Act)*, which carries a penalty of up to \$5,000. In addition, where the owner or occupier of the land fails to comply with a Notice given pursuant to Section 33(1), the City may enter the land to carry out the work required to comply with the Notice and also recover any costs and expenses incurred in carrying out that work from the owner or occupier of the land.



