

**Appendix 7**  
**Bush Fire Management Plans – Eastern and Central Precincts**  
**(Strategen)**



# Bushfire Management Plan Coversheet

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

## Bushfire Management Plan and Site Details

Site Address / Plan Reference: Central Precinct: Lot 6 Taronga Place

Suburb: Eglinton

State: WA

P/code: 6034

Local government area: City of Wanneroo

Description of the planning proposal: Amendment to Eglinton Alkimos District Structure Plan

BMP Plan / Reference Number: URQ18238.01

Version: Rev 0

Date of Issue: 23/08/2018

Client / Business Name: Urban Quarter on behalf of Prime Eglinton Pty Ltd

## Reason for referral to DFES

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

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

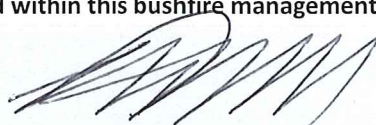
**Note: The decision maker (e.g. local government or the WAPC) should only refer the proposal to DFES for comment if one (or more) of the above answers are ticked "Yes".**

## BPAD Accredited Practitioner Details and Declaration

Name	Accreditation Level	Accreditation No.	Accreditation Expiry
Linden Wears	3	BPAD19809	30/06/2019
Company		Contact No.	
Strategen Environmental		9380 3147	

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

Signature of Practitioner



Date 23/08/2018





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# Alkimos Eglinton District Structure Plan Amendment Central Precinct – Lot 6, Eglinton

## Bushfire Management Plan

Prepared for  
Urban Quarter  
by Strategen

August 2018



# **Alkimos Eglinton District Structure Plan Amendment Central Precinct – Lot 6, Eglinton**

## **Bushfire Management Plan**

Strategen is a trading name of  
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Level 1, 50 Subiaco Square Road Subiaco WA 6008  
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August 2018

## ***Limitations***

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In preparing the report, Strategen has relied upon data and other information provided by the Client and other individuals and organisations, most of which are referred to in the report ("the data"). Except as otherwise expressly stated in the report, Strategen has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report ("conclusions") are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. Strategen has also not attempted to determine whether any material matter has been omitted from the data. Strategen will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to Strategen. The making of any assumption does not imply that Strategen has made any enquiry to verify the correctness of that assumption.

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### **Environmental conclusions**

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

## ***Document control***

**Client: Urban Quarter**

Report Version	Revision No.	Purpose	Strategen author/reviewer and accreditation details	Date
Draft Report	Rev A	Draft for client review	L Robertson (BPAD 36748)/ L Wears (BPAD 19809)	08/08/2018
Final Report	Rev 0	Final for use	L Robertson (BPAD 36748)/ L Wears (BPAD 19809)	23/08/2018

Filename: URQ18238\_01 R002 Rev 0 - 23 August 2018

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## 1. Proposal details

This BMP has been prepared for Urban Quarter on behalf of Prime Eglinton Pty Ltd in support of an amendment to the Alkimos Eglinton District Structure Plan (AEDSP) to develop the central portion of Lot 6 (No. 19) Taronga Place, Eglinton (the Central Precinct) in the City of Wanneroo. The modification to the AEDSP includes reclassification of the portion of Lot 6 bound by the rail reserve and freeway reserve from Service Commercial to Residential. A Concept Plan has been prepared to support the proposed rezoning and is provided in Figure 1. The Plan includes the provision of residential lots, public roads and nine separate areas of public open space (POS).

The Central Precinct is bound to the west by a future rail corridor and to the east by the future Mitchell Freeway Reserve. Land cleared for imminent future residential development and a school site is situated directly to the south and undeveloped land supporting scrub/woodland vegetation borders the northwest boundary of the Central Precinct (refer to Figure 2 and Figure 3).

The Central Precinct is situated within a designated bushfire prone area according to the DFES State Map of Bush Fire Prone Areas (DFES 2018; refer to Plate 1), which triggers bushfire planning requirements under Policy Measures 6.2 and 6.3 of *State Planning Policy 3.7 Planning in Bushfire Prone Areas* (SPP 3.7; WAPC 2015). This Bushfire Management Plan (BMP) has been prepared in accordance with Sections 5.2.1 and 5.2.4 of *Guidelines for Planning in Bushfire Prone Areas* (the Guidelines; WAPC 2017), which require region planning scheme amendments and local planning scheme amendments to be accompanied by a BMP that includes the results of a strategic-level Bushfire Hazard Level (BHL) assessment. Further supplementary information to support bushfire management and consistent with policy requirements will be provided as part of a future Structure Plan. This BMP demonstrates that a proposal for the subject land for residential development can meet bushfire requirements of SPP 3.7 and the Guidelines.

The proposed development should be assessed in the context of future development to the east and west of the Central Precinct. A subdivision application has been approved by WAPC (December 2017) for the portion of Lot 6 located to the west of the future rail corridor (known as the Western Precinct) for which Strategen has prepared a BMP (2017). Potential rezoning of Lot 6 located east of the future Mitchell Freeway Reserve, as well as 11 adjacent lots (known as the Eastern Precinct) is also being considered by Urban Quarter. A separate BMP has been prepared by Strategen (2018) to guide potential development within the Eastern Precinct. Strategen has also prepared an Environmental Assessment Report (EAR; Strategen 2018) to support the current proposed amendment to the AEDSP which should be read concurrently with this BMP.

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This plan has no formal approval status and has been prepared by CLE to demonstrate one potential land use scenario for the land which could be investigated further by the Client. Implementation in any form would be subject to the receipt of all appropriate approvals. The plan may be changed without notice and should not be relied upon. This plan remains the property of CLE.



**CLE**  
TOWN PLANNING + DESIGN

**CONCEPT PLAN**  
East of Beach Central Precinct, Lot 6 Taronga Place  
Eglinton

**DRAFT**

plan no: **3109-173B-01**  
date: 21 June 2018  
scale: 1:5000 @A3, 1:2500 @A1

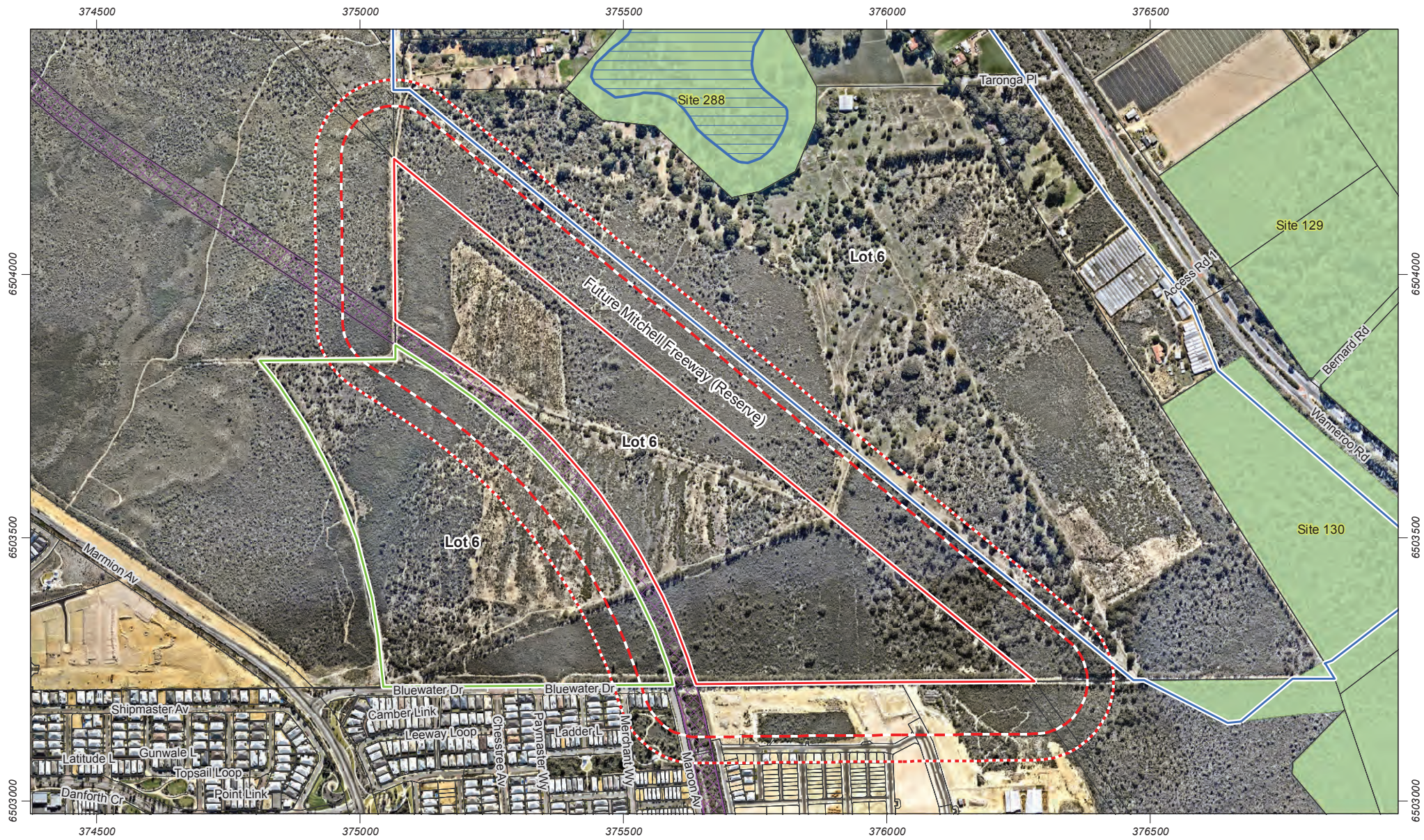
This plan is current at the revised date & subject to approval, survey & engineering detail. This plan remains the property of CLE © www.cleplan.com.au

Source: CLE Town Planning + Design 21/06/2018

Figure 1: Concept Plan

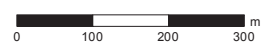


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**Figure 2: Site overview**

Scale 1:10,000 at A4



Coordinate System: GDA 1994 MGA Zone 50  
 Note that positional errors may occur in some areas  
 Date: 3/08/2018

Author: jcrute  
 Source: Nearmap: Aerial imagery, 06/2018. Client: Development layout: 07/2018.

Path: Q:\Consult\2018\URQ\URQ18238\01\_GIS\_documents\ArdMap\_documents\URQ18238\_G008\_RevC.mxd

**Legend**

- Central Precinct boundary
- Eastern Precinct boundary
- Western Precinct boundary
- 100m assessment area
- 150m assessment area
- Cadastral
- Future railway reserve
- Bush Forever site
- Geomorphic wetland
- Resource Enhancement





Plate 1: Map of Bushfire Prone Areas 2018 (DFES)

## 2. Environmental considerations

### 2.1 Native vegetation – modification and clearing

The Central Precinct contains a combination of mature low banksia woodland and scrub vegetation as well as areas that have previously been cleared and are consequently undergoing regrowth.

A search of publicly available environmental data concluded that:

- the entirety of the Central Precinct is mapped as being an environmentally sensitive area
- the EPBC listed Banksia Woodlands Threatened Ecological Community (TEC) is mapped as having the potential to occur within the Central Precinct
- the Central Precinct contains mapped confirmed breeding and roosting areas (buffered) for the EPBC listed Carnaby's Black Cockatoo as well as potential feeding areas
- The Central Precinct does not contain any Bush Forever sites but sites 130 and 288 are situated to the east, within the Eastern Precinct. Bush Forever site 129 is located further east, to the east of Wanneroo Road.

Environmental surveys conducted by Strategen in 2018 (Strategen 2018a) confirmed that the Eastern Precinct contains the Banksia Woodlands TEC. The surveys also concluded that there is no potential black cockatoo breeding or roosting habitat occurring within the Central Precinct area but there is potential feeding habitat.

An EPBC referral was submitted for the entirety of Lot 6 as part of the subdivision application process for the Western Precinct (Strategen 2016). The proposal was deemed to be a controlled action, based on the clearing of up to 120 ha of native vegetation within the three development areas (Western, Central and Eastern Precincts), the rail corridor and a 20 m wide corridor on the eastern and western sides of Mitchell Freeway Road Reserve.

### 2.2 Revegetation / Landscape Plans

The Concept Plan (Figure 1) includes a conceptual plan for POS areas which are expected to comprise a combination of retained native vegetation and low threat landscaping within passive and active POS. The full extent of native vegetation to be retained within the project area will be determined at future planning stages through the allocation of POS and the development of a Landscape Plan. The post-development BHL assessment (Figure 4) has adopted a precautionary approach to classify all POS areas as Class B Woodland at this high level of planning.



### 3. Bushfire assessment results

#### 3.1 Assessment inputs

##### 3.1.1 Vegetation classification

Strategen assessed classified vegetation and exclusions within 150 m of the Central Precinct through on-ground verification on 30 May 2018 in accordance with *AS 3959—2009 Construction of Buildings in Bushfire-Prone Areas* (AS 3959; SA 2009) and the *Visual Guide for Bushfire Risk Assessment in Western Australia* (DoP, 2016). Georeferenced site photos are contained in Appendix 1.

Figure 3 illustrates the existing (pre-development) vegetation classifications within the Central Precinct and 150 m wide assessment area. Figure 4 illustrates the anticipated post-development vegetation classifications following completion of construction works within the Western Precinct area (including implementation of the future rail corridor as an APZ) and implementation of POS and various low threat landscaping throughout the Central Precinct area.

##### *Pre-development classification*

A summary of the assessed pre-development classified vegetation and exclusions within the Eastern Precinct are listed in Table 1 and illustrated in Figure 3.

Table 1: Pre-development vegetation classifications/exclusions

Vegetation Plot	Vegetation classification/exclusion	Effective slope under the classified vegetation (degrees)	Comments
1	Class B Woodland	Downslope >5-10°	Within the remainder of the future Mitchell Freeway Road Reserve immediately east of the Central Precinct
2	Class B Woodland	Flat/upslope	Adjoining the western boundary of the Central Precinct on vacant rural land as mature vegetation and as regrowth vegetation in areas that have been subjected to historical clearing
3	Class A Forest	Downslope >5-10°	Southeast portion of the Central Precinct and the future Mitchell Freeway Road Reserve
4	Class B Woodland	Flat/upslope	Adjacent to the south-eastern corner of the Central Precinct
5	Class B Woodland	Flat/upslope	Within the two existing POS areas on Maroon Avenue and McGiffen Avenue, immediately south of the Central Precinct
6	Exclusions 2.2.3.2 (e) & (f)	N/A	Within the cleared area immediately south of the Central Precinct and to the East of Maroon Avenue which is expected to be imminently developed with urban infrastructure, including roads and footpaths and residential dwellings
7	Class B Woodland	Flat/upslope	Adjoining the western boundary of the Central Precinct on vacant rural land as mature vegetation and as regrowth vegetation in areas that have been subjected to historical clearing
8	Class B Woodland	Downslope >5-10°	Across the remainder of the Central Precinct as mature vegetation and as regrowth vegetation in areas that have been subjected to historical clearing

It should be noted that a precautionary approach has been applied in the classification of Class B Woodland vegetation within and surrounding the Central Precinct. This vegetation actually comprises a combination of Class D Scrub and Class B Woodland vegetation, however, a precautionary approach assists the strategic nature of this assessment to ensure that adequate separation can be achieved between worst case surrounding vegetation and future habitable development. A more detailed assessment of the surrounding vegetation can be carried out at the subdivision stage to confirm the extent of Class B Woodland and Class D Scrub vegetation that exists.

### *Post-development classification*

On completion of development, the majority of the Central Precinct is expected to be cleared to accommodate urban development. The only potentially remaining classifiable vegetation within the site itself will be Class B Woodland retained within the POS areas and any areas of classifiable revegetation or landscaping. The extent of vegetation to be retained or introduced within the POS will be determined at future planning stages. It is possible that some areas of retained vegetation may meet the exclusion criteria of AS 3959 Clause (a), (b), (c) and/or (d) which are based on the size of classifiable vegetation areas and relative isolation from the residential lots as well as other areas of classifiable vegetation. This will be determined at future planning stages through detailed landscaping design strategies.

A summary of the potential post-development classified vegetation within the Central Precinct are listed in Table 2 and illustrated Figure 4.

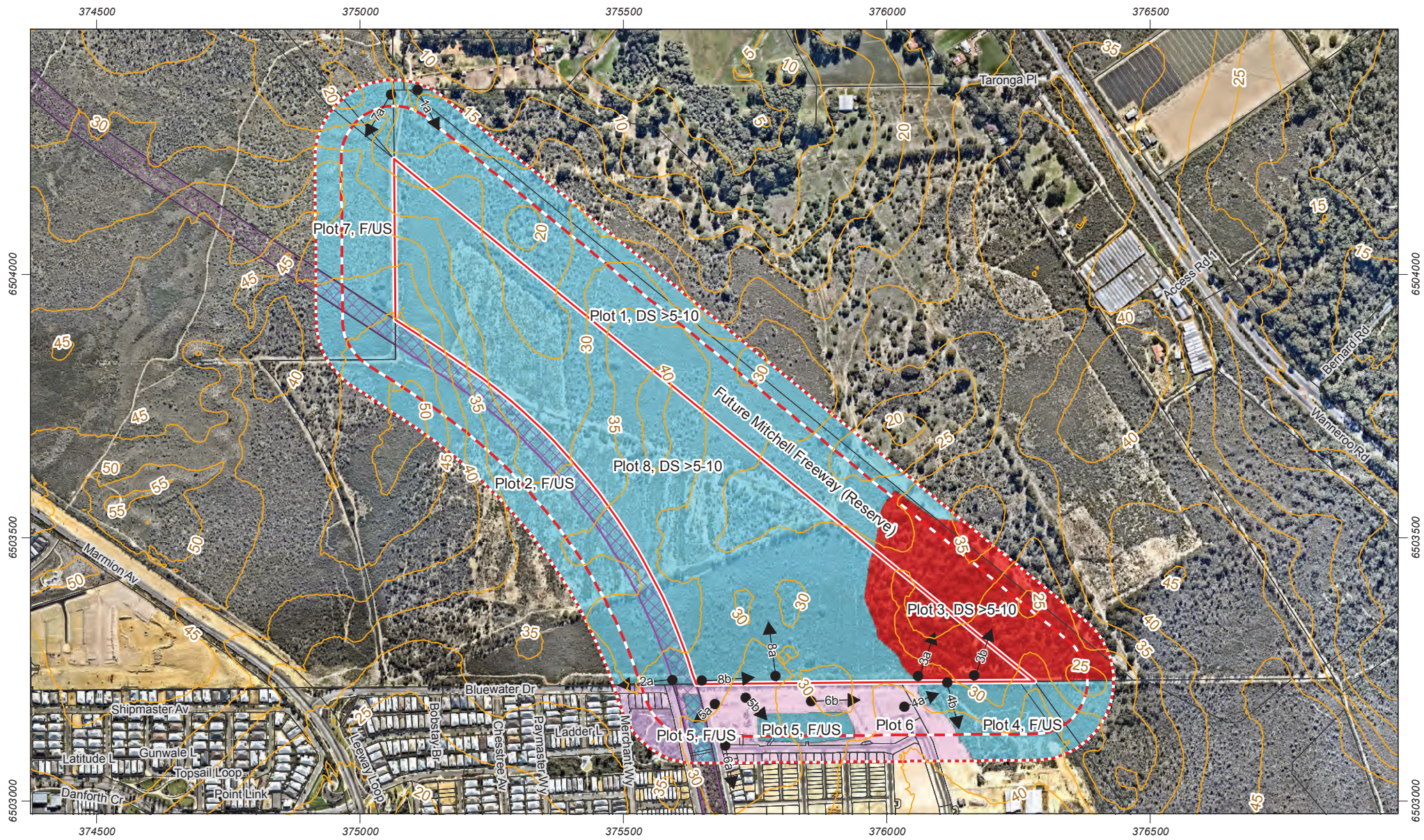
Table 2: Post-development vegetation classifications/exclusions

Vegetation Plot	Vegetation classification/exclusion	Effective slope under the classified vegetation (degrees)	Comments
1	Class B Woodland	Downslope >5-10°	Vegetation expected to remain within future Mitchell Freeway Road Reserve
2	Exclusions 2.2.3.2 (e) & (f)	N/A	The future rail corridor bordering the western site boundary is to be maintained in a low threat state as an APZ in perpetuity in accordance with the approved BMP for the Western Precinct (Strategen, 2017) and the Western Precinct area, which will be developed with urban infrastructure and residential lots prior to development of the Central Precinct
3	Class A Forest	Downslope >5-10°	Vegetation expected to remain within future Mitchell Freeway Road Reserve
4	Class B Woodland	Flat/upslope	Adjacent to the south-eastern corner of the Central Precinct
5	Class B Woodland	Flat/upslope	Within the two existing POS areas on Maroon Avenue and McGiffen Avenue, immediately south of the Central Precinct
6	Exclusions 2.2.3.2 (e) & (f)	N/A	the cleared area immediately south of the Central Precinct and to the East of Maroon Avenue which is expected to be imminently developed with urban infrastructure, including roads and footpaths and residential dwellings
7	Class B Woodland	Flat/upslope	Adjoining the western boundary of the Central Precinct on vacant rural land as mature vegetation and as regrowth vegetation in areas that have been subjected to historical clearing
8	Exclusions 2.2.3.2 (e) & (f)	N/A	The majority of the Central Precinct, through the provision of urban infrastructure and development within future residential lots, including public roads and footpaths, managed POS, building footprints, cultivated gardens and maintained lawns
9	Class B Woodland	Flat/upslope	Within passive portions of the POS areas where native revegetation may be retained and/ or revegetated

### 3.1.2 Effective slope

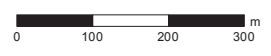
Strategen assessed effective slope under classified vegetation through on-ground verification on 30 May 2018 in accordance with AS 3959. Results were cross-referenced with Landgate 5 m contour data and are depicted in Figure 3 and Figure 4.

Site observations indicate that land surrounding the Central Precinct ranges from being flat or upslope to the south and west, and downslope >0 to 5 degrees to the northwest and east.



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

Scale 1:10,000 at A4



Coordinate System: GDA 1994 MGA Zone 50  
 Note that positional errors may occur in some areas  
 Date: 17/07/2018  
 Author: jcrute

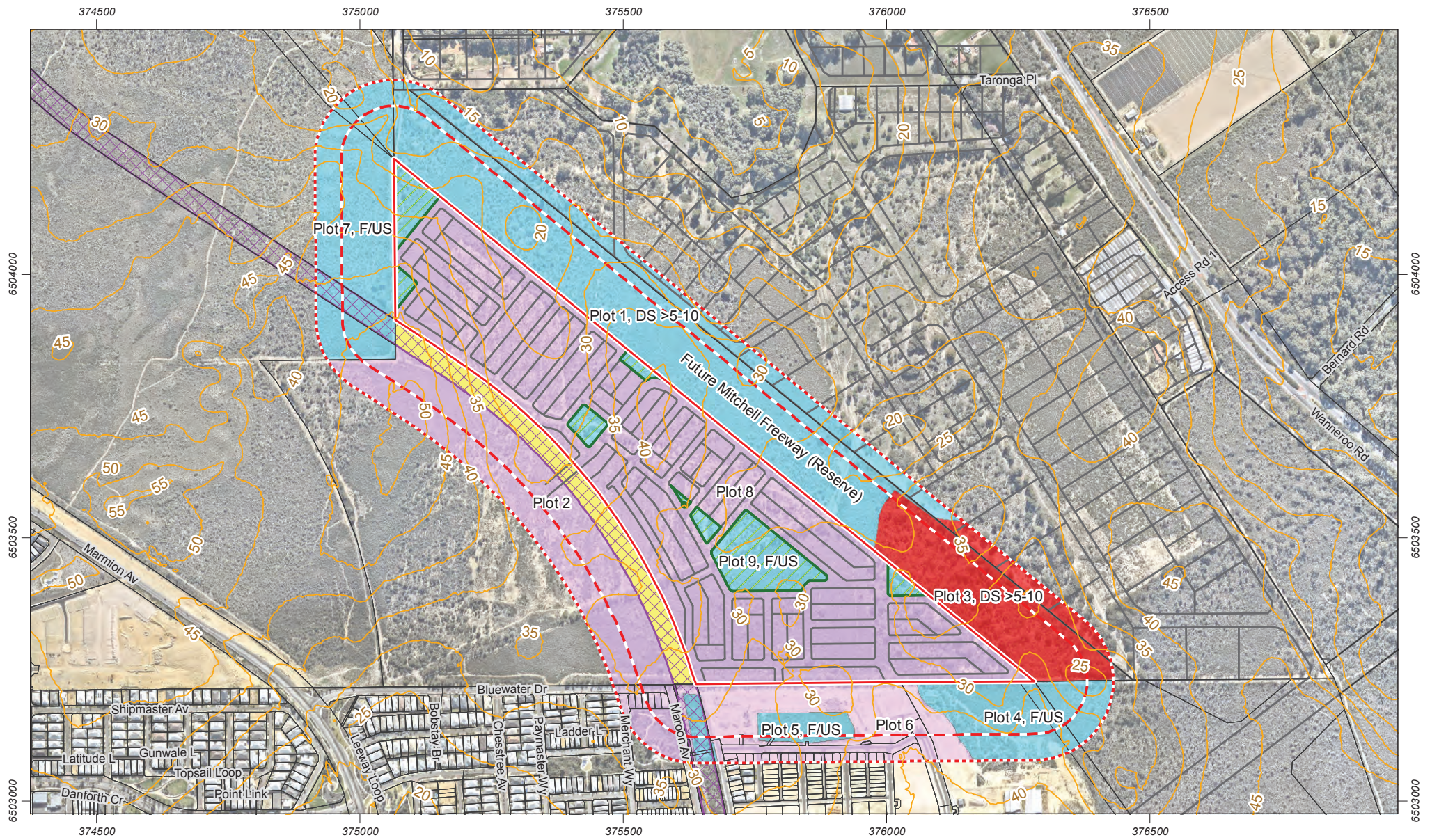
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**Legend**

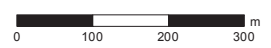
- Photo point and direction
- Surface elevation (mAHD)
- ▭ Cadastre
- ▭ 100m assessment area
- ▭ 150m assessment area
- ▭ Future railway reserve
- ▭ Central Precinct boundary
- Vegetation class**
- ▭ Class B Woodland
- ▭ Class A Forest
- ▭ Exclusion Clauses 2.2.3.2. (e) or (f)





**Figure 4: Post-development vegetation classification and effective slope**

Scale 1:10,000 at A4



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

Date: 17/07/2018

Author: jcrute

Source: Nearmap: Aerial imagery, 06/2018. Client: Development layout: 07/2018.

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**Legend**

- Surface elevation (mAHD)
- 100m assessment area
- Cadastre
- Development layout
- Vegetation class**
- Class B Woodland
- Class A Forest
- Exclusion Clauses 2.2.3.2. (e) or (f)
- APZ for Western Precinct
- Central Precinct boundary
- 150m assessment area
- POS
- Future railway reserve



## 3.2 Assessment outputs

### 3.2.1 Bushfire Hazard Level (BHL) assessment

#### *Pre-development*

Strategen has mapped the pre-development bushfire hazard levels within the Central Precinct and the 150 m wide assessment area. The bushfire hazard levels have been assessed on the basis of the vegetation discussed in Section 3.1.1 (i.e. the current pre-development extent of vegetation within and surrounding the Eastern Precinct).

A summary of results is provided below and depicted in Figure 5:

- all Class A Forest has been assigned a bushfire hazard level of Extreme
- all Class B Woodland has been assigned a bushfire hazard level of Extreme
- all vegetation/land excluded under AS 3959 Clauses 2.2.3.2 (e) and (f) has been assigned a bushfire hazard level of Low
- in accordance with the bushfire hazard level assessment methodology detailed in Appendix 2 of the Guidelines, land that has a Low bushfire hazard level but is within 100 m of Extreme or Moderate bushfire hazard level vegetation has been assigned a Moderate bushfire hazard level.

The pre-development BHL assessment shows that based on the existing vegetation, the project area contains land with Extreme bushfire hazard levels.

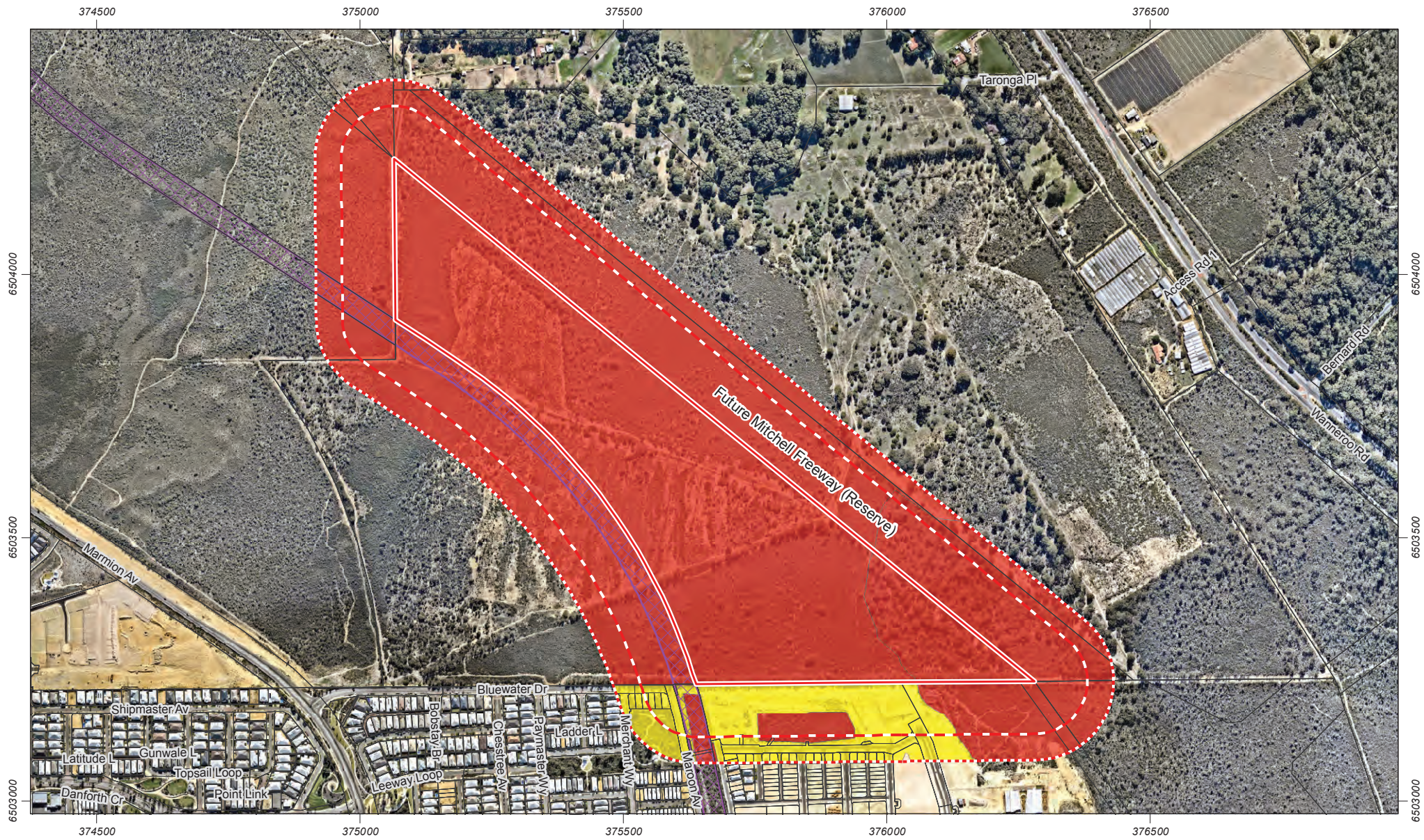
#### *Post-development*

Strategen has mapped the post-development bushfire hazard levels to demonstrate that the future bushfire hazard levels will be acceptable for future development to occur within the Central Precinct. The bushfire hazard levels have been assigned on the basis of the vegetation discussed in Section 3.1.1 and the future expected vegetation within and surrounding the project area.

A summary of results is provided below and depicted in Figure 6:

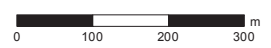
- all Class A Forest has been assigned a bushfire hazard level of Extreme
- all Class B Woodland has been assigned a bushfire hazard level of Extreme
- all vegetation/land excluded under AS 3959 Clauses 2.2.3.2 (e) and (f) has been assigned a bushfire hazard level of Low
- in accordance with the bushfire hazard level assessment methodology detailed in Appendix 2 of the Guidelines, vegetation that has a Low bushfire hazard level but is within 100 m of Extreme or Moderate bushfire hazard level vegetation has been assigned a Moderate bushfire hazard level.

The post-development BHL assessment demonstrates that, all future habitable development will be located on land with either a Low or Moderate bushfire hazard level. As stated in Section 3.1.1, Extreme bushfire hazard levels have been applied precautionarily to POS areas and no future development would be located on land with an Extreme bushfire hazard level.



**Figure 5: Pre-development BHL assessment**

Scale 1:10,000 at A4



Coordinate System: GDA 1994 MGA Zone 50

Note that positional errors may occur in some areas

Date: 16/07/2018

Author: jcrute

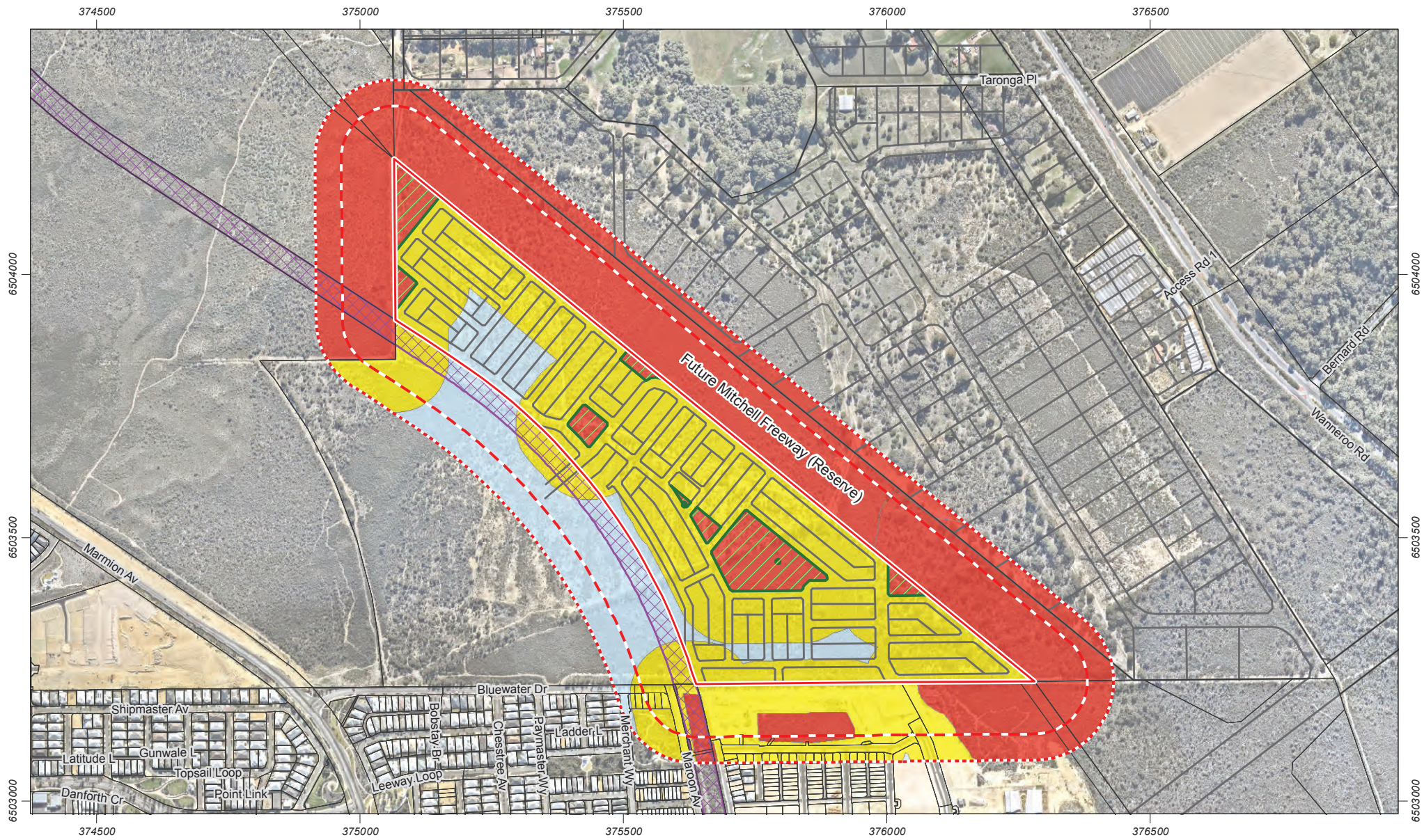
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**Legend**

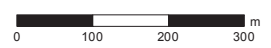
- Central Precinct boundary
- 100m assessment area
- 150m assessment area
- Cadastre
- Future railway reserve
- Extreme
- Moderate





**Figure 6: Post-development BHL assessment**

Scale 1:10,000 at A4



Coordinate System: GDA 1994 MGA Zone 50  
 Note that positional errors may occur in some areas  
 Date: 16/07/2018  
 Author: jcrute

Source: Nearmap: Aerial imagery, 06/2018. Client: Development layout: 07/2018.

Path: Q:\Consult\2018\URQ\URQ18238\01\_GIS\_documents\ArdMap\_documents\URQ18238\_G016\_RevA.mxd

**Legend**

- Central Precinct boundary
- 100m assessment area
- 150m assessment area
- Cadastre
- Development layout
- POS
- Future railway reserve
- Bushfire hazard level Extreme
- Bushfire hazard level Moderate
- Bushfire hazard level Low





## 4. Identification of bushfire hazard issues

### 4.1 Bushfire context

The potential for a bushfire event to impact the site should be viewed in the context of future imminent low threat urban development occurring within the Western Precinct as well as clearing within the future rail corridor, which both lie immediately west of the Central Precinct. Once the Central and Western Precincts have been cleared and developed to accommodate urban development, the remaining bushfire threat will be through banksia woodland/scrub vegetation to the northwest and east and through forest and banksia woodland vegetation to the southeast.

Due consideration should also be given to future clearing of the Mitchell Freeway Road Reserve and development of the Eastern Precinct, for which a SP is being lodged presently. Development within these areas will effectively remove the risk of a bushfire threat from the east of the Central Precinct. Although this may be the case, it is unknown when vegetation within these areas will be cleared, meaning that a bushfire occurring within this vegetation needs to be considered as part of this BMP.

During typical summer afternoon southwest winds, or less common strong northerly winds, Strategen considers a fire approaching the Central Precinct from the northwest through banksia woodland/ scrub vegetation has the potential to be part of a landscape-scale bushfire. Vegetation to the west is contiguous with large unbroken tracts of vegetation extending several kilometres north towards Yanchep National Park and northwest towards the Indian Ocean, although it is likely this vegetation will become fragmented in the future through future urban development along the coast.

A bushfire approaching the Central Precinct through forest and banksia woodland/ scrub vegetation to the east could support fire runs of up to 600 m with the impacts being increased due to an effective downslope of between 5 and 10 degrees. The impacts from this direction are expected to be less severe than from the west due to reduced fire runs and a greater degree of fragmentation due to current agricultural practices further east. However, vegetation within the future Mitchell Freeway Reserve is predominantly intact and has a direct interface with the full width of the eastern cadastral boundary of the Central Precinct, having the potential to impact a large number of lots near the site perimeter.

It is acknowledged that the bushfire risk to the proposed development posed by these hazards can be managed through standard application of acceptable solutions under the Guidelines, as well as through a direct bushfire suppression response if required. This is also the case with any vegetation retained and revegetation within proposed POS. Bushfire mitigation strategies applicable to the proposed development are addressed in Section 1 of this BMP.

### 4.2 Bushfire hazard issues

Examination of strategic development design in accordance with the Concept Plan and existing and post-development bushfire hazard levels has identified the following bushfire hazard issues to be considered at future planning stages:

1. It is expected that some POS areas will contain classifiable vegetation on completion of development. This will need to be accounted for with the preparation of a Landscape Plan and updated BMP for the relevant stage of development. As a precautionary measure, the post-development BHL assessment assumes that all POS areas will comprise entirely of Class B Woodland which constitutes an Extreme bushfire hazard level. This is based on the potential retention of existing trees within these areas. Strategen acknowledges that the vegetation classifications and resulting bushfire hazard levels are likely to be lower than those assigned in the post-development BHL assessment, however, a conservative approach has been taken at this higher level of planning to inform future development stages of the potential impacts of classifiable vegetation within the POS. A Landscape Plan will be required at future planning stages to specify areas where classifiable vegetation is retained or introduced.

2. Similarly, the Landscape Plan will need to demonstrate areas of POS that will meet the exclusion criteria of AS 3959 Clauses 2.2.3.2 (e) [non-vegetated areas] and/or (f) [low threat vegetation] as well as exclusions in relation to size and isolation of classified vegetation areas (Clauses [a], [b], [c] and/or [d]).
3. The Concept Plan includes direct interfaces of future residential lots with POS. In the event that classified vegetation is retained or introduced within these areas, future stages of planning are to ensure that sufficient separation exists for future habitable development to achieve BAL-29 or lower. The likely setbacks required to achieve BAL-29 are:
  - \* Class B Woodland, Flat/Upslope  $^{\circ}$  = 14 m
  - \* Class B Woodland, Downslope  $>0$  to  $5^{\circ}$  = 17 m
  - \* Class B Woodland, Downslope  $>5$  to  $10^{\circ}$  = 22 m.
4. The eastern cadastral boundary of the Central Precinct is sited in proximity to Class B Woodland and Class A Forest within the future Mitchell Freeway Reserve. The vegetation has an effective downslope of between 5 and 10 degrees in relation to the site which has the potential to elevate bushfire behaviour. Perimeter roads and POS have been provided along the full length of the eastern boundary and provide a substantial buffer between the external vegetation and future residential lots. A BAL Contour assessment at the subdivision stage of planning will demonstrate that the residential lots along the eastern perimeter of the site are able to achieve BAL-29 or lower, as required by acceptable solution A1.1 of the Guidelines. The likely setbacks required to achieve BAL-29 are:
  - \* Class A Forest, Downslope  $>5$  to  $10^{\circ}$  = 33 m
  - \* Class B Woodland, Downslope  $>5$  to  $10^{\circ}$  = 22 m.
5. Perimeter roads have also been provided adjacent to the proposed residential lots in the north of the Central Precinct. At this stage of planning, the post-development BHL assessment (Figure 4, Figure 6) assumes that the two northern POS areas will comprise Class B Woodland vegetation on flat land. Once the POS design and species composition and density has been defined at future planning stages, a BAL Contour assessment will demonstrate that the perimeter road provides sufficient separation to the POS (if it is deemed to be classifiable vegetation) or the external Class B Woodland beyond this to enable the northern lots to achieve BAL-29 or lower, as required by acceptable solution A1.1 of the Guidelines. The likely setbacks required to achieve BAL-29 are:
  - \* Class B Woodland, Downslope  $>5$  to  $10^{\circ}$  = 22 m (this applies to both the POS and external vegetation).
6. The south eastern portion of the Central Precinct is located in proximity to Class B Woodland vegetation. As above, a BAL Contour assessment at the subdivision stage of development will demonstrate that the perimeter roads provide sufficient separation for the residential lots to achieve BAL-29. The likely setbacks required to achieve BAL-29 are:
  - \* Class B Woodland, Flat/upslope = 14 m
  - \* Class A Forest, Downslope  $>5-10^{\circ}$  = 33 m.
7. All other external boundary interfaces are either located adjacent to future low threat urban development within the Western Precinct and rail corridor and existing low threat urban development to the south.
8. As the Central Precinct contains existing bushfire prone vegetation, including Class A Forest and Class B Woodland, staged construction at the subdivision stage of planning is to consider the BAL impacts from adjacent future stages that have not yet been developed. Low threat buffers may need to be implemented around the current stage of development to ensure there is no residual BAL impact from vegetation that has not yet been cleared or landscaped to achieve a low threat state.

9. The BHL assessment has been prepared on the basis of the Western Precinct and rail corridor directly west of the site being developed prior to the Central Precinct. Due to the proposed staging plan from west to east, it is considered unlikely that development of the Central Precinct would commence prior to completion of urban development to the west; however, if this was to occur, future planning stages would need to consider the BAL impacts from undeveloped land adjacent to the western boundary of the project area. This is especially important for the residential lots directly abutting the rail corridor in the south-west of the Central Precinct that could potentially become undevelopable should the rail corridor not be implemented as a compliant APZ first.
10. Development of the Central Precinct is also reliant on development within the Western Precinct occurring first to ensure the site is provided with direct access to the west in order to provide two access routes at all times, including during staging, as is required by Acceptable Solution A3.1 of the Guidelines.

Based on the above, Strategen considers the bushfire hazards within and adjacent to Central Precinct and the associated bushfire risk to be readily manageable through standard management responses outlined in the Guidelines and AS 3959. These responses have been factored into proposed development as early as possible at all stages of the planning process to ensure a suitable, compliant and effective bushfire management outcome is achieved for protection of future life, property and environmental assets.

## 5. Assessment against the bushfire protection criteria

### 5.1 Compliance table

An acceptable solutions assessment against the bushfire protection criteria from the Guidelines is provided in Table 3

Table 3: Compliance table

Bushfire protection criteria	Method of compliance	Proposed bushfire management strategies
	Acceptable solutions	
Element 1: Location	A1.1 Development location	The post-development BHL assessment (Figure 6) identifies that on completion of development, all developable land will comprise either a low or moderate bushfire hazard level.
Element 2: Siting and design	A2.1 Asset Protection Zone	<p>APZs sufficient to achieve a minimum of BAL-29 are to be implemented for all lots subject to a BAL above BAL-LOW.</p> <p>The required APZs are to be identified at future planning stages based on future subdivision/ development design and following a BAL contour assessment.</p> <p>APZs are to be implemented and maintained in accordance with Schedule 1 of the Guidelines (Appendix 2) and the City's Firebreak and Fuel Load Notice (see Appendix 3).</p>
Element 3: Vehicular access	A3.1 Two access routes.	<p>On completion of development, the Central Precinct will be provided with three access points leading to future residential development directly to the south as well as one access point leading to future residential development within the Western Precinct.</p> <p>Marmion Avenue is the nearest major access road and is located approximately 850 m west of the Central Precinct. Access to this arterial route will be provided primarily by Bluewater Drive which abuts the southern boundary of the Western Precinct. Secondary access will be provided to Marmion Avenue by a future emergency access way (EAW) that Strategen understands will be constructed as part of an approval process for several separate development applications in the general area. The indicative location of the EAW is understood to be from Leeway Loop. Strategen notes that the legacy single access route from Marmion Avenue and addition of the EAW discussed above has not prevented various other developments in the area from being approved.</p> <p>It is expected that the north-south aligned road within the Central Precinct which abuts the future rail corridor will be continued north through future urban development which will achieve additional egress destinations to the north at a later time.</p> <p>On this basis, the Central Precinct is considered to achieve two different publicly available vehicular access routes that connect to the public road network to provide safe access and egress to two different destinations.</p>
	A3.2 Public road	Future public roads are to be constructed in accordance with the standards required by A3.2 (refer to Table 4 below and E3.2 of the Guidelines for technical requirements).
	A3.3 Cul-de-sac (including a dead-end-road)	Cul-de-sacs should be avoided in bushfire prone areas. The conceptual design does not include any cul-de-sacs, however, if they are included in future subdivision design they are to comply with the requirements of A3.3 (refer to Table 4 and E3.3 of the Guidelines).
	A3.4 Battle-axe	Battle-axes should be avoided in bushfire prone areas. The conceptual design does not include any battle-axes, however, if they are included in future subdivision design they are to comply with the requirements of A3.4 (refer to Table 4 and E3.4 of the Guidelines).

Bushfire protection criteria	Method of compliance	Proposed bushfire management strategies
	Acceptable solutions	
	A3.5 Private driveway longer than 50 m	Where future habitable development in an area above BAL-LOW is sited more than 50 m from a public road, the private driveway is to comply with the requirements of A3.5 (see Table 4 and E3.5 of the Guidelines). This is to be addressed at the development application stage of planning. It is not anticipated that any of the residential lots would be of a size that would require habitable buildings to be located more than 50 m from a public road.
	A3.6 Emergency access way	Temporary EAWs may be required to provide through access to a public road during staged development (see Table 4 below and E3.6 of the Guidelines for technical details). Based on the conceptual development design, the development is not considered to require any permanent EAWs, however, if they are included they are to comply with A3.6.
	A3.7 Fire service access routes (perimeter roads)	Temporary FSARs may be required during staging of development to provide firefighter access to and around the perimeter of undeveloped portions of the project area. Permanent FSARs are not considered to be required as the proposed perimeter roads are deemed to provide sufficient access to the edges of the Central Precinct. FSARs are to comply with the requirements of A3.7 (refer to Table 4 below and E3.7 of the Guidelines for technical details).
	A3.8 Firebreak width	Each stage of development is required to comply with the requirements of A3.8 and the City of Wanneroo Firebreak Notice as amended (refer to Appendix 3). During staged development, 3 m wide perimeter firebreaks are to be installed immediately inside and around all external boundaries of balance lots greater than 2,000 m <sup>2</sup> in area. On completion of the development, the residential lots will be less than 2,000 m <sup>2</sup> in area and will comprise cultivated gardens and maintained lawns. Therefore, firebreaks would not be required for these lots. POS areas larger than 2,000 m <sup>2</sup> in area will require 3 m wide perimeter firebreaks. Public roads or FSARs bordering the perimeter of the POS areas would provide sufficient and permanent firebreaks. Maintained and living turfed areas may provide a suitable alternative to formal firebreaks. Consultation with the City is to be engaged with in with regard to firebreak requirements for POS at future planning stages.
Element 4: Water	A4.1 Reticulated areas	Future development is to be provided with a reticulated supply compliant with Water Corporation DS-63 requirements.
	A4.2 Non-reticulated areas	N/A The proposed development will be located within a reticulated area.
	A4.3 Individual lots within non-reticulated areas (Only for use if creating 1 additional lot and cannot be applied cumulatively)	N/A The proposed development will be located within a reticulated area.

Table 4: Vehicular access technical requirements

Technical requirement	Public road	Cul-de-sac	Battle-axe legs & private driveways longer than 50 m	Emergency access ways	Fire service access routes
Minimum trafficable surface (m)	6*	6	4	6*	6*
Horizontal distance (m)	6	6	6	6	6
Vertical clearance (m)	4.5	N/A	4.5	4.5	4.5
Maximum grade <50 m	1 in 10	1 in 10	1 in 10	1 in 10	1 in 10
Minimum weight capacity (t)	15	15	15	15	15
Maximum crossfall	1 in 33	1 in 33	1 in 33	1 in 33	1 in 33
Curves minimum inner radius	8.5	8.5	8.5	8.5	8.5

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

Source: WAPC 2017

## 6. Responsibilities for implementation and management of the bushfire measures

This BMP has been prepared as a strategic guide to demonstrate how development compliance will be delivered at future planning stages in accordance with the Guidelines. Aside from the preparation of future BMPs to accompany future subdivision and development applications where appropriate, there are no further items to implement, enforce or review at this strategic stage of the planning process.

Future BMPs prepared for subsequent subdivision and development applications are to meet the relevant commitments outlined in this strategic level BMP, address the relevant requirements of SPP 3.7 (i.e. Policy Measures 6.4 and 6.5 respectively) and demonstrate in detail how the proposed development will incorporate the relevant acceptable solutions to meet the performance requirements of the Guidelines. Future BMPs are to include the following detailed information:

- proposed lot layout, including POS areas
- detailed landscaping design in regard to POS
- post development classified vegetation extent and effective slope
- BAL contour map demonstrating that proposed development areas will achieve BAL–29 or lower
- width and alignment of compliant APZs
- confirmation of how bushfire management will be addressed during development staging
- proposed approach to fuel management or AS 3959 application in response to on-site POS or easements (if and where required)
- vehicular access provisions, including demonstration that a minimum of two access routes will be achieved for each stage of development in accordance with Acceptable Solution A3.1
- water supply provisions with regards to reticulated water
- future requirements for any future vulnerable land uses, such as provision of a Bushfire Emergency Evacuation Plan
- future requirements for any future high-risk land uses, such as provision of a Bushfire Risk Management Plan
- provisions for notification on Title for any future lots with a rating of BAL–12.5 or greater as a condition of subdivision
- compliance requirements with the current City annual firebreak notice
- construction of Class 1, 2, 3 or associated 10a buildings in accordance with AS 3959 to assessed BAL rating
- requirements for BMP and BAL compliance as conditions of subdivision
- compliance with performance principles of the bushfire protection criteria
- proposed implementation and audit program outlining all measures requiring implementation and the appropriate timing and responsibilities for implementation.

On the basis of the information contained in this BMP, Strategen considers the bushfire hazards within and adjacent to the Central Precinct and the associated bushfire risk is readily manageable through standard management responses outlined in the Guidelines and AS 3959. Strategen considers that on implementation of the proposed management measures, the project area will be able to be developed with a manageable level of bushfire risk whilst maintaining full compliance with the Guidelines and AS 3959.

## 7. 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>, [13/05/2018].
- 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.
- Strategen 2018a, *Environmental Assessment Report, Eglinton District Structure Plan Amendment Central and Eastern Precinct*. Strategen Environmental, Perth.
- Strategen 2018b, *Bushfire Management Plan, Eglinton District Structure Plan Amendment Eastern Precinct*. Strategen Environmental, Perth.
- 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 1.3 August 2017*, Western Australian Planning Commission, Perth.





**Appendix 1**  
**Vegetation photos**



Photo ID: 1a

<b>Plot number</b>		Plot 1
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class B Woodland
	<b>Post-development</b>	Class B Woodland
<b>Description / justification for classification</b>		Photo shows northern portion of plot, at southern end of Beonaddy Road. Plot comprises a combination of mature and regrowth vegetation and is potentially a combination of Class B Woodland and Class D Scrub.



Photo ID: 2a

<b>Plot number</b>		Plot 2
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class B Woodland
	<b>Post-development</b>	Exclusions 2.2.3.2 (e) & (f)
<b>Description / justification for classification</b>		Photo shows southern end of Plot, adjacent to Bluewater Drive. Plot comprises a combination of mature and regrowth vegetation and is potentially a combination of Class B Woodland and Class D Scrub. Vegetation is to be reduced to low threat through development of the Western Precinct and implementation of rail corridor as an APZ.



Photo ID: 3a

<b>Plot number</b>		Plot 3
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class A Forest
	<b>Post-development</b>	Class A Forest – retained within Mitchell Freeway Reserve and potentially within internal POS and Exclusion 2.2.3.2 (e) & (f) – within project area.
<b>Description / justification for classification</b>		Vegetation has a tiered structure with a dense scrub understorey and eucalypt canopy with foliage cover exceeding 30%. The vegetation will be reduced to low threat within the bounds of the subject lot to accommodate future urban development (a small area may be retained within POS).

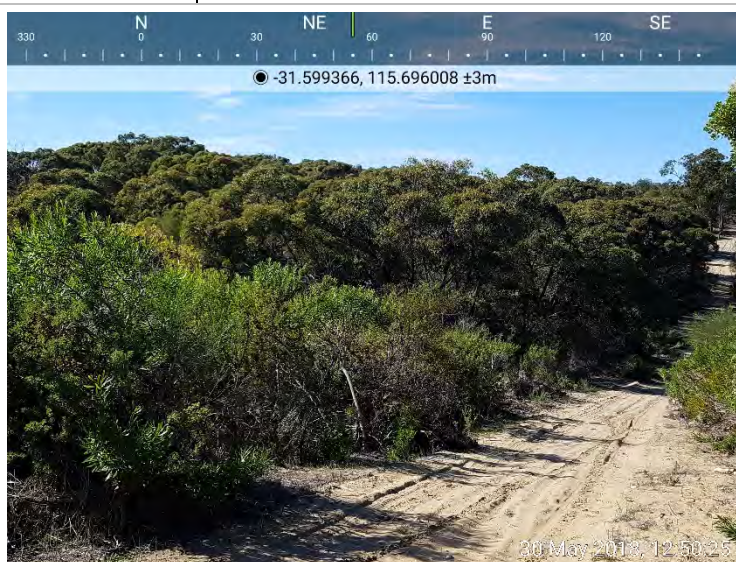


Photo ID: 3b

<b>Plot number</b>		Plot 3
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class A Forest
	<b>Post-development</b>	Class A Forest – retained within Mitchell Freeway Reserve and potentially within internal POS and Exclusion 2.2.3.2 (e) & (f) – within project area.
<b>Description / justification for classification</b>		Vegetation has a tiered structure with a dense scrub understorey and eucalypt canopy with foliage cover exceeding 30%. The vegetation will be reduced to low threat within the bounds of the subject lot to accommodate future urban development (a small area may be retained within POS).



Photo ID: 4a

<b>Plot number</b>		Plot 4
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class B Woodland
	<b>Post-development</b>	Class B Woodland
<b>Description / justification for classification</b>		Vegetation to south of project area has a predominantly scrub structure with a fairly continuous vertical and horizontal structure. Classified as Class B Woodland as a precautionary measure based on surrounding mature vegetation.



Photo ID: 4b

<b>Plot number</b>		Plot 4
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class B Woodland
	<b>Post-development</b>	Class B Woodland
<b>Description / justification for classification</b>		Vegetation to south of project area has a predominantly scrub structure with a fairly continuous vertical and horizontal structure. Classified as Class B Woodland as a precautionary measure based on surrounding mature vegetation.



Photo ID: 5a

<b>Plot number</b>		Plot 5
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class B Woodland
	<b>Post-development</b>	Class B Woodland
<b>Description / justification for classification</b>		Retained vegetation within POS to the south of the project area has comprises shrub and scrub species with a Eucalypt overstorey and <30% canopy cover.



Photo ID: 5b

<b>Plot number</b>		Plot 5
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class B Woodland
	<b>Post-development</b>	Class B Woodland
<b>Description / justification for classification</b>		Retained vegetation within POS to the south of the project area has comprises fairly open banksia woodland including shrub and scrub species with a sparse Eucalypt overstorey and <30% canopy cover.



Photo ID: 6a

<b>Plot number</b>		Plot 6
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Exclusions 2.2.3.2 (e) & (f)
	<b>Post-development</b>	Exclusions 2.2.3.2 (e) & (f)
<b>Description / justification for classification</b>		Plot includes all non-vegetated areas (e.g. roads, footpaths, cleared land) and low threat landscaping to the south of the project area.



Photo ID: 6b

<b>Plot number</b>		Plot 6
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Exclusions 2.2.3.2 (e) & (f)
	<b>Post-development</b>	Exclusions 2.2.3.2 (e) & (f)
<b>Description / justification for classification</b>		Plot includes all non-vegetated areas (e.g. roads, footpaths, cleared land) and low threat landscaping to the south of the project area.



Photo ID: 7a

<b>Plot number</b>		Plot 7
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class B Woodland
	<b>Post-development</b>	Class B Woodland
<b>Description / justification for classification</b>		Vegetation to north west of project area has a predominantly scrub structure with a fairly continuous vertical and horizontal structure. Classified as Class B Woodland as a precautionary measure based on surrounding mature vegetation.



Photo ID: 8a

<b>Plot number</b>		Plot 8
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class B Woodland
	<b>Post-development</b>	Class B Woodland
<b>Description / justification for classification</b>		Vegetation within the project area comprises a combination of mature and regrowth vegetation and is potentially a combination of Class B Woodland and Class D Scrub.





Photo ID: 8b

<b>Plot number</b>		Plot 8
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class B Woodland
	<b>Post-development</b>	Class B Woodland
<b>Description / justification for classification</b>		Vegetation within the project area comprises a combination of mature and regrowth vegetation and is potentially a combination of Class B Woodland and Class D Scrub.

**Appendix 2**  
**APZ Standards (the Guidelines)**



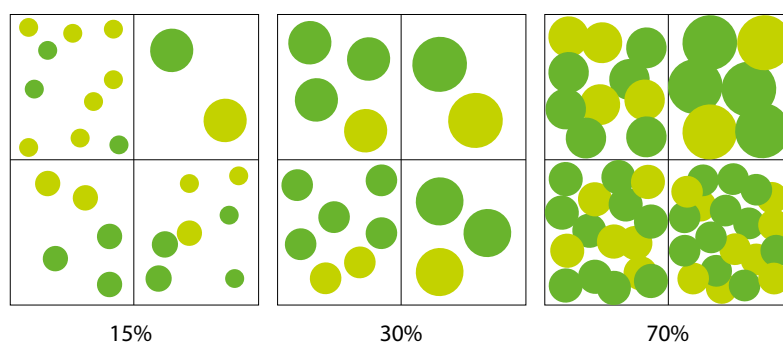
Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
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## ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

### 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 18: 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 5m<sup>2</sup> 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.



**Appendix 3**  
**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 2000m<sup>2</sup> or more

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

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

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

### 3. Buildings

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

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

### Penalty

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

### DATES TO REMEMBER

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

## When and how to obtain a fire permit

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

### WANNEROO ANIMAL CARE CENTRE

Located at the rear of the Ashby Operations Centre, 1204 Wanneroo Road, Ashby

The City's Rangers / Fire Control Officers are available to issue permits 7 days a week\* from 4pm - 6pm

\*Except Good Friday

### CITY OF WANNEROO CIVIC CENTRE

23 Dundee 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.



City of  
Wanneroo

23 Dundee 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



City of  
Wanneroo



## Keeping your home safe from fire

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

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

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

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

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

## When and how to burn

### NO BURNING FROM 1 DECEMBER - 31 MARCH

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

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

### GARDEN RUBBISH AND REFUSE

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

Fire danger rating signs are located at the following locations:

- Corner of Joondalup Drive and Wanneroo Road
- Wanneroo Road, south of the Yanchep Beach Road turn off
- Wanneroo Road, Carabooda • Marmion Avenue, Jindalee
- Neaves Road, Mariginiup • Old Yanchep Road, Pinjar
- Gnaragara 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

# Bushfire management plan/Statement addressing the Bushfire Protection Criteria coversheet

Site address: Lot 6 Taronga Place Eglinton (plus 11 additional lots)

Site visit: Yes  No

Date of site visit (if applicable): Day 30 Month May Year 2018

Report author or reviewer: Linden Wears (reviewer)

WA BPAD accreditation level (please circle):

Not accredited  Level 1 BAL assessor  Level 2 practitioner  Level 3 practitioner

If accredited please provide the following.

BPAD accreditation number: 19809 Accreditation expiry: Month June Year 2019

Bushfire management plan version number: Rev 1

Bushfire management plan date: Day 13 Month September Year 2018

Client/business name: Prime Eglinton Pty Ltd

	Yes	No
Has the BAL been calculated by a method other than method 1 as outlined in AS3959 (tick no if AS3959 method 1 has been used to calculate the BAL)?		<input checked="" type="checkbox"/>
Have any of the bushfire protection criteria elements been addressed through the use of a performance principle (tick no if only acceptable solutions have been used to address all of the bushfire protection criteria elements)?		<input checked="" type="checkbox"/>

Is the proposal any of the following (see [SPP 3.7 for definitions](#))?

	Yes	No
Unavoidable development (in BAL-40 or BAL-FZ)		<input checked="" type="checkbox"/>
Strategic planning proposal (including rezoning applications)		<input checked="" type="checkbox"/>
High risk land-use		<input checked="" type="checkbox"/>
Vulnerable land-use		<input checked="" type="checkbox"/>

None of the above

**Note:** Only if one (or more) of the above answers in the tables is yes should the decision maker (e.g. local government or the WAPC) refer the proposal to DFES for comment.

Why has it been given one of the above listed classifications (E.g. Considered vulnerable land-use as the development is for accommodation of the elderly, etc.)?

BMP has been prepared to guide a future Scheme amendment rather than to support a current proposal.

The information provided within this bushfire management plan to the best of my knowledge is true and correct:

Signature of report author or reviewer



Date 13/09/2018



intelligent outcomes | respected experience

# Alkimos Eglinton District Structure Plan Amendment Eastern Precinct Concept Plan – Lot 6, Eglinton

## Bushfire Management Plan

Prepared for  
Urban Quarter  
by Strategen

September 2018





**Alkimos Eglinton District  
Structure Plan Amendment  
Eastern Precinct Concept Plan  
– Lot 6, Eglinton**

**Bushfire Management Plan**

Strategen is a trading name of  
Strategen Environmental Consultants Pty Ltd  
Level 1, 50 Subiaco Square Road Subiaco WA 6008  
ACN: 056 190 419

September 2018

## ***Limitations***

### **Scope of services**

This report ("the report") has been prepared by Strategen Environmental Consultants Pty Ltd (Strategen) in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Client and Strategen. In some circumstances, a range of factors such as time, budget, access and/or site disturbance constraints may have limited the scope of services. This report is strictly limited to the matters stated in it and is not to be read as extending, by implication, to any other matter in connection with the matters addressed in it.

### **Reliance on data**

In preparing the report, Strategen has relied upon data and other information provided by the Client and other individuals and organisations, most of which are referred to in the report ("the data"). Except as otherwise expressly stated in the report, Strategen has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report ("conclusions") are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. Strategen has also not attempted to determine whether any material matter has been omitted from the data. Strategen will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to Strategen. The making of any assumption does not imply that Strategen has made any enquiry to verify the correctness of that assumption.

The report is based on conditions encountered and information received at the time of preparation of this report or the time that site investigations were carried out. Strategen disclaims responsibility for any changes that may have occurred after this time. This report and any legal issues arising from it are governed by and construed in accordance with the law of Western Australia as at the date of this report.

### **Environmental conclusions**

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

## ***Document control***

**Client: Urban Quarter**

Report Version	Revision No.	Purpose	Strategen author/reviewer and accreditation details	Date
Draft Report	Rev A	Draft for client review	L Robertson (BPAD 36748)/ L. Wears (BPAD 19809)	08/08//2018
Final Report	Rev 0	Final for use	L Robertson (BPAD 36748)/ L Wears (BPAD 19809)	23/08/2018
<b>Final Report</b>	<b>Rev 1</b>	<b>Final for use</b>	<b>L Robertson (BPAD 36748)/ L Wears (BPAD 19809)</b>	<b>13/09/2018</b>

Filename: URQ18238\_01 R003 Rev 1 - 13 September 2018

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## 1. Proposal details

Prime Eglinton Pty Ltd, under the guidance of Urban Quarter, has prepared a Concept Plan to guide potential future rezoning of the eastern portion of Lot 6 (No. 19) Taronga Place, Eglinton and eleven other adjacent lots (the Eastern Precinct) in the City of Wanneroo. The Eastern Precinct is currently zoned 'Rural' under the Metropolitan Region Scheme (MRS) and 'General Rural' under the City of Wanneroo's District Planning Scheme No. 2 (DPS 2). A Concept Plan (refer to Figure 1) has been prepared to identify the planning investigation area for a potential future District Structure Plan Amendment application in relation to future commercial development.

A portion of Bush Forever Site 288 is located within the north of the Eastern Precinct which also contains a Resource Enhancement Wetland (REW). The Eastern Precinct is bound by (refer to Figure 2):

- Wanneroo Road and Bush Forever Site 130 to the east
- vegetated rural land and Bush Forever Site 130 to the south
- the future Mitchell Freeway Road Reserve, which is currently fully vegetated, to the west
- Beonaddy Road and vegetated rural land to the northwest
- Pipidinny Road to the north.

The Eastern Precinct comprises 11 individual landholdings comprising the following lot makeup:

- Lot 4 (No. 24) Taronga Place
- Lot 6 (No. 19) Taronga Place
- Lot 2 (No. 3049) Wanneroo Road
- Lot 6280 (No. 3119) Wanneroo Road
- Lot 1 (No. 1) Taronga Place
- Lot 4 (No. 73) Pipidinny Road
- Lot 6 (No. 91) Pipidinny Road
- Lot 7 (No. 51) Pipidinny Road
- Lot 8 (No. 25) Pipidinny Road
- Lot 13712 (No. 63K) Pipidinny Road
- Lot 3 (No. 31) Beonaddy Road
- Lot 5 (No. 17) Beonaddy Road
- Lot 20 (No. 23) Beonaddy Road.

The Eastern Precinct is situated within a designated bushfire prone area according to the DFES State Map of Bush Fire Prone Areas (DFES 2018; refer to Plate 1), which triggers bushfire planning requirements under Policy Measures 6.2 and 6.3 of *State Planning Policy 3.7 Planning in Bushfire Prone Areas* (SPP 3.7; WAPC 2015). Future planning applications will be required to prepare a Bushfire Management Plan (BMP) in accordance with Sections 5.2.1 and 5.2.4 of *Guidelines for Planning in Bushfire Prone Areas* (the Guidelines; WAPC 2017), which require region planning scheme amendments and local planning scheme amendments to be accompanied by a BMP that includes the results of a strategic-level Bushfire Hazard Level (BHL) assessment. The current BMP has been prepared to provide a preliminary overview to demonstrate that bushfire risk can be suitably addressed at future planning stages.

Future potential development should be assessed in the context of proposed development within the remainder of Lot 6 Taronga Place. A Structure Plan application is currently being prepared by Urban Quarter to develop the central portion of Lot 6 (the Central Precinct) for residential development. A separate, concurrent BMP has been prepared by Strategen (2018) to support this development. Additionally, a subdivision approval has been issued by WAPC (December 2017) for the portion of Lot 6 located to the west of the future rail corridor (known as the Western Precinct) for which Strategen has also prepared a BMP (2017).

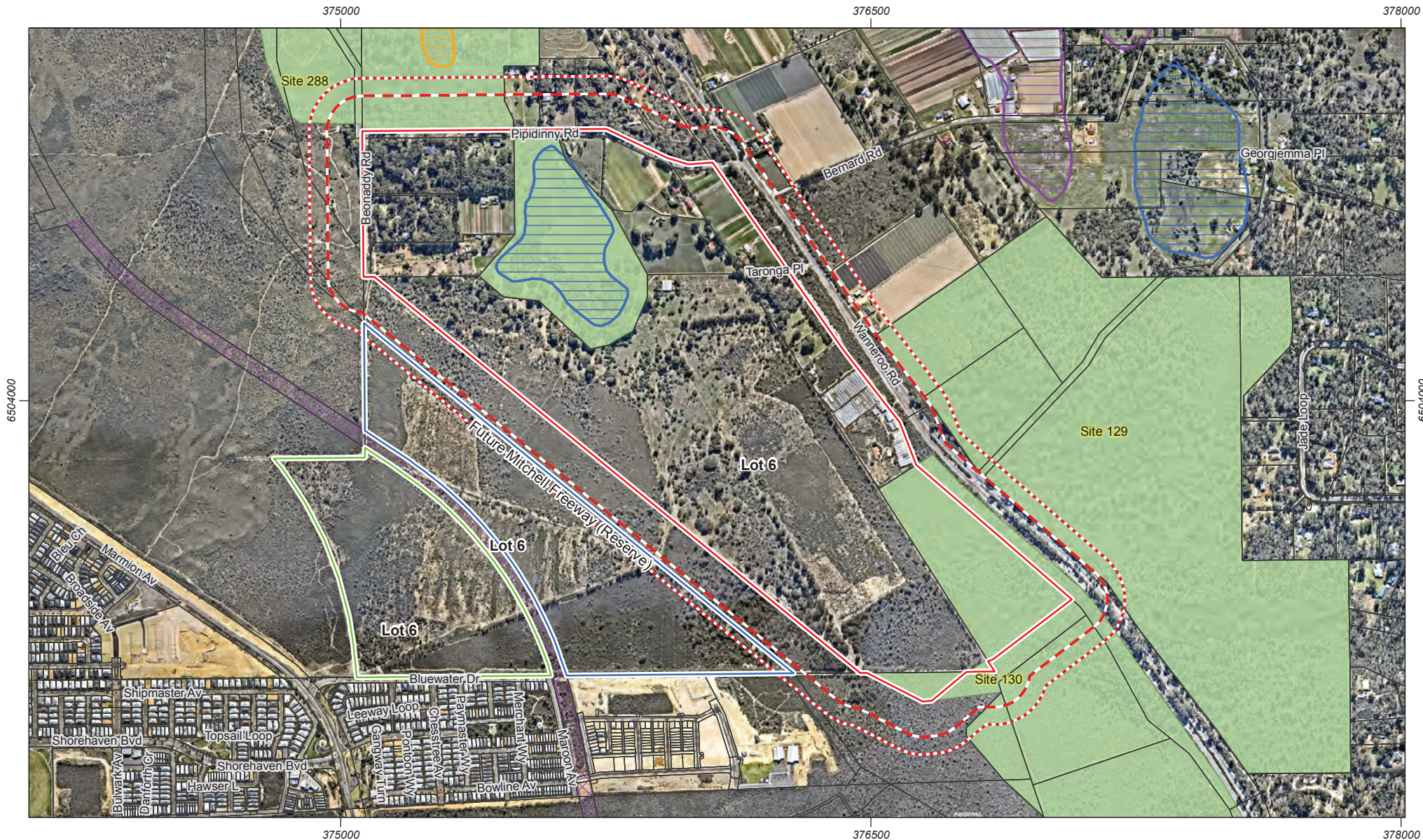
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Source: CLE Town Planning + Design 10/09/2018

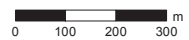
Figure 1: Concept Plan

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**Figure 2: Site overview**

Scale 1:15,000 at A4



Coordinate System: GDA 1994 MGA Zone 50

Note that positional errors may occur in some areas

Date: 2/08/2018

Author: jcrute

Source: Nearmap: Aerial imagery, 06/2018. Client: Development layout: 07/2018.

Path: Q:\Consult\2018\URQ\URQ18238\01\_GIS\_documents\ArcMap\_documents\URQ18238\_G009\_RevC.mxd

**Legend**

- |                           |                      |                        |                    |              |
|---------------------------|----------------------|------------------------|--------------------|--------------|
| Central Precinct boundary | 100m assessment area | Future railway reserve | Geomorphic wetland | Multiple Use |
| Eastern Precinct boundary | 150m assessment area | Bush Forever site      | Conservation       |              |
| Western Precinct boundary | Cadastre             | Resource Enhancement   |                    |              |



Plate 1: Map of Bushfire Prone Areas 2018 (DFES)

## 2. Environmental considerations

### 2.1 Native vegetation – modification and clearing

Lot 6 Taronga Place contains a combination of mature forest, low banksia woodland and scrub vegetation; areas that have previously been cleared and are consequently undergoing regrowth; open scrub vegetation associated with a Resource Enhancement Wetland (REW) and cleared farmland supporting grazed pasture. The remaining lots support grazed pasture land and crops, forest and woodland vegetation and rural residential and commercial properties.

A search of publicly available environmental data concluded that:

- the southern tip of Bush Forever site 288 is located within the Eastern Precinct. This Bush Forever site is relatively large and incorporates Yanchep National Park
- the portion of Bush Forever site 288 located within the northern portion of the Eastern Precinct is associated with an REW (refer to Figure 2)
- Bush Forever Site 130 is located within the south-east corner of the Eastern Precinct and land immediately bordering the precinct boundary
- Bush Forever site 129 is located further east, to the east of Wanneroo Road
- the entirety of the project area is mapped as being an environmentally sensitive area
- the EPBC listed Banksia Woodlands Threatened Ecological Community (TEC) is mapped as having the potential to occur within the project area
- the Eastern Precinct contains mapped confirmed breeding and roosting areas (buffered) for the EPBC listed Carnaby's Black Cockatoo as well as potential feeding areas.

Environmental surveys conducted by Strategen in 2018 (Strategen 2018a) confirmed that the Eastern Precinct contains the Banksia Woodlands TEC. The surveys also concluded that there is no potential black cockatoo breeding or roosting habitat occurring within the Eastern Precinct area but there is potential feeding habitat.

An EPBC referral was submitted for the entirety of Lot 6 as part of the subdivision application process for the Western Precinct (Strategen 2016). The proposal was deemed to be a controlled action, based on the clearing of up to 120 ha of native vegetation within the three development areas (Western, Central and Eastern Precincts), the rail corridor and a 20 m wide corridor on the eastern and western sides of Mitchell Freeway Road Reserve.

### 2.2 Revegetation / Landscape Plans

The Concept Plan (Figure 1) does not make any provisions for landscaping or revegetation at this stage of planning. All vegetation within the Bush Forever areas located within the project area will be retained and/or revegetated as part of future development. It is also likely that other areas of vegetation will be retained within the project area as regional open space (ROS) or public open space (POS).

The extent of native vegetation retention or revegetation within the project area will be determined at future planning stages through the development of a Landscape Plan (to be incorporated within a a Vegetation and Conservation Area Management Plan (or equivalent)).

## 3. Bushfire assessment results

### 3.1 Assessment inputs

#### 3.1.1 Effective slope

Strategen assessed effective slope under classified vegetation through on-ground verification on 30 May 2018 in accordance with *AS 3959—2009 Construction of Buildings in Bushfire-Prone Areas* (AS 3959; SA 2009). Results were cross-referenced with Landgate 5 m contour data and are depicted in Table 1 and Figure 3.

Site observations indicate that vegetation within the Eastern Precinct area has an undulating form and a maximum effective slope of >0 to 5 degrees in relation to future habitable development areas. Woodland and scrub vegetation bordering the majority of the western cadastral boundary of the Eastern Precinct is predominantly upslope. Effective slope beneath forest vegetation is >5-10° along the western boundary. Forest and woodland vegetation to the south and east of the Eastern Precinct exhibit effective downslopes of between >0 to 5 and >5 to 10 degrees.

#### 3.1.2 Vegetation classification

Strategen assessed classified vegetation and exclusions within 150 m of the project area through on-ground verification on 30 May 2018 in accordance with AS 3959 and the *Visual Guide for Bushfire Risk Management in Western Australia* (DoP, 2016). Georeferenced site photos are contained in Appendix 1 .

#### *Pre-development classification*

A summary of the assessed pre-development classified vegetation and exclusions within the Eastern Precinct are listed in Table 1 and illustrated in Figure 3.

Table 1: Pre-development vegetation classifications/exclusions

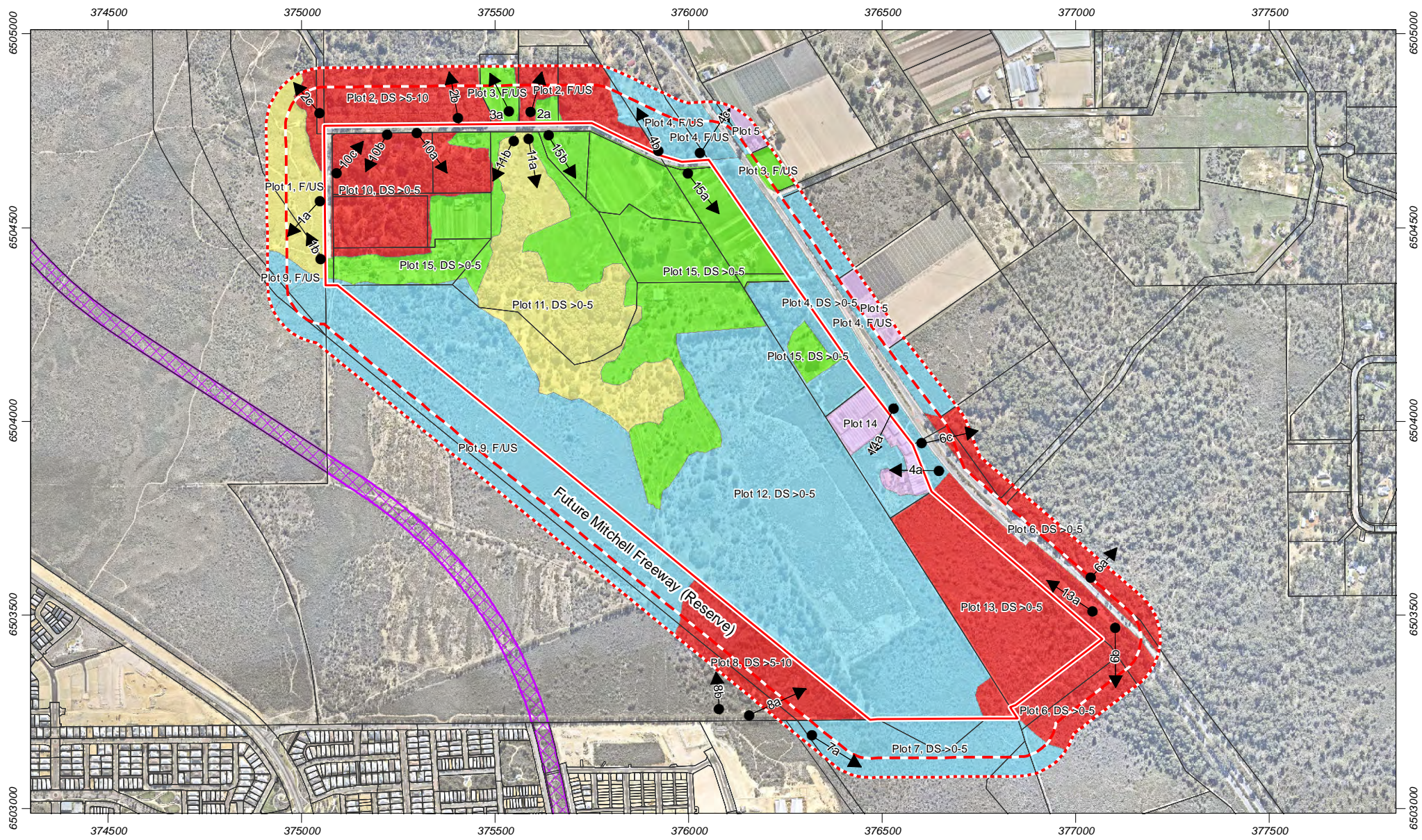
Vegetation Plot	Vegetation classification/exclusion	Effective slope under the classified vegetation (degrees)	Comments
1	Class D Scrub	Flat/Upslope	East of Beonaddy Road
2	Class A Forest	Downslope >5-10°	North of Pipidinny Road and west of Beonaddy Road
3	Class G Grassland (Open Woodland)	Flat/Upslope	Within rural residential lots north of Pipidinny Road
4	Class B Woodland	Flat/Upslope	North of Pipidinny Road, east of site and east of Wanneroo Road
5	Exclusions 2.2.3.2 (e) & (f)	N/A	Managed market garden vegetation within Lot 6262 Bernard Road and Lot 6259 Walding Road
6	Class A Forest	Downslope >0-5°	To south of site and within Wanneroo Road reserve (BF130) and east of Wanneroo Road (BF129)
7	Class B Woodland	Downslope >0-5°	Within southern tip of site and directly south of site boundary
8	Class A Forest	Downslope >0-5°	Within future Mitchell Freeway Reserve
9	Class B Woodland	Flat/Upslope	Within future Mitchell Freeway Reserve
10	Class A Forest	Downslope >0-5°	North west corner of site
11	Class D Scrub	Downslope >0-5°	REW within site (BF288)
12	Class B Woodland	Downslope >0-5°	Within site
13	Class A Forest	Downslope >0-5°	South east corner of site (BF130)



Vegetation Plot	Vegetation classification/ exclusion	Effective slope under the classified vegetation (degrees)	Comments
14	Exclusions 2.2.3.2 (e) & (f)	N/A	Managed portion of Lot 2 (No. 3049) Wanneroo Road (within site)
15	Class G Grassland (Open Woodland)	Downslope >0-5°	Rural farmland within site

***Post-development classification***

Post-development vegetation classification is unable to be determined at this stage of planning as lot layout (including ROS and POS allocation) has not yet been designated.



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

Scale 1:13,581 at A4  
 0 100 200 300 m

Coordinate System: GDA 1994 MGA Zone 50  
 Note that positional errors may occur in some areas  
 Date: 18/07/2018  
 Author: jcrute

Source: Nearmap; Aerial imagery, 06/2018. Client: Development layout; 07/2018.

Path: Q:\Consult\2018\URQ\URQ18238\01\_GIS\_documents\ArcMap\_documents\URQ18238\_G012\_RevC.mxd

**Legend**

- ▶ Photo point and direction
- ▭ 100m assessment area
- ▭ Cadastre
- ▭ Vegetation class
- ▭ Class D Scrub
- ▭ Eastern Precinct boundary
- ▭ 150m assessment area
- ▭ Future railway reserve
- ▭ Class A Forest
- ▭ Class G Grassland
- ▭ Class B Woodland
- ▭ Exclusion Clauses 2.2.3.2. (e) or (f)



## 3.2 Assessment outputs

### 3.2.1 Bushfire Hazard Level (BHL) assessment

#### *Pre-development*

Strategen has mapped the pre-development bushfire hazard levels within the Eastern Precinct and the 150 m wide assessment area. The bushfire hazard levels have been assessed on the basis of the vegetation discussed in Section 3.1.2 (i.e. the current pre-development extent of vegetation within and surrounding the Eastern Precinct).

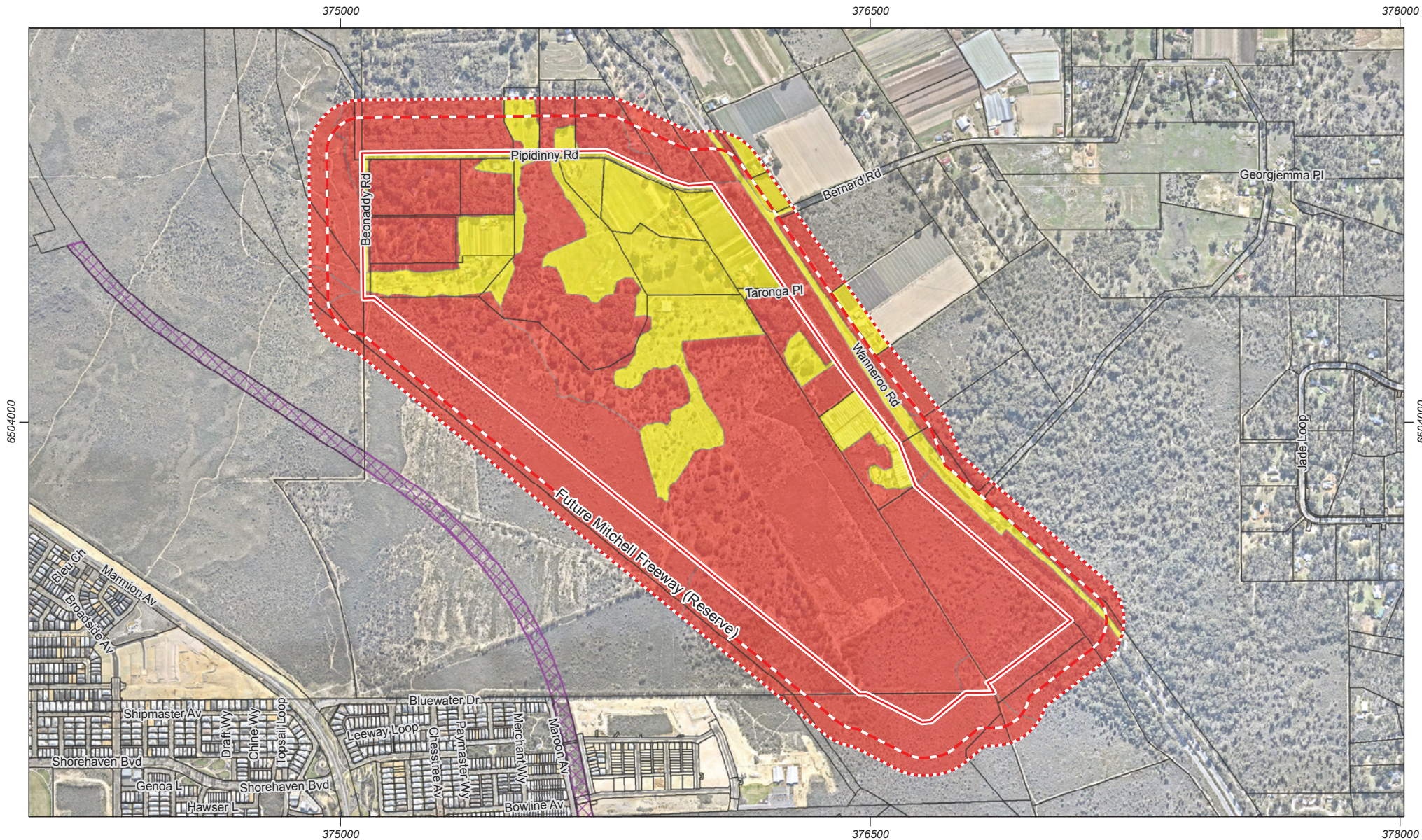
A summary of results is provided below and depicted in Figure 4:

- all Class A Forest has been assigned a bushfire hazard level of Extreme
- all Class B Woodland has been assigned a bushfire hazard level of Extreme
- all Class D Scrub has been assigned a bushfire hazard level of Extreme
- all vegetation/land excluded under AS 3959 Clauses 2.2.3.2 (e) and (f) has been assigned a bushfire hazard level of Low
- in accordance with the bushfire hazard level assessment methodology detailed in Appendix 2 of the Guidelines, land that has a Low bushfire hazard level but is within 100 m of Extreme or Moderate bushfire hazard level vegetation has been assigned a Moderate bushfire hazard level.

The pre-development BHL assessment shows that based on the existing vegetation, the project area contains land with Moderate and Extreme bushfire hazard levels.

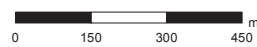
#### *Post-development*

Post-development bushfire hazard levels are unable to be determined at this stage of planning as lot layout and allocation of POS has not yet been designated. Should the project progress to Structure Plan stage, a post-development bushfire hazard level map and/or BAL contour map will be prepared to demonstrate that no future development will be located on land subject to an Extreme bushfire hazard level or BAL greater than BAL-29.



**Figure 4: Pre-development BHL assessment**

Scale 1:15,000 at A4



Coordinate System: GDA 1994 MGA Zone 50  
 Note that positional errors may occur in some areas  
 Date: 2/08/2018

Author: jcrute

Source: Nearmap: Aerial imagery\_06/2018\_Client: Development layout: 07/2018

Path: Q:\Consult\2018\URQ\URQ 18238\01\_GIS\_documents\ArcMap\_documents\URQ 18238\_G015\_RevB.mxd

**Legend**

- Eastern Precinct boundary
- 100m assessment area
- 150m assessment area
- Cadastre
- Future railway reserve
- Bushfire hazard level**
- Extreme
- Moderate



## 4. Identification of bushfire hazard issues

### 4.1 Bushfire context

The potential for a bushfire event to impact the site should be viewed in the context of future low threat urban development set to occur west of the site within the Western Precinct, future rail corridor and Central Precinct. Once the Central and Western Precincts have been cleared and developed to accommodate urban development, the remaining bushfire threat will be through a corridor of banksia woodland/ scrub vegetation within the future Mitchell Freeway road reserve (if it is not cleared prior to development of the Eastern Precinct) and through forest vegetation directly to the southeast (within the ROS and east of Wanneroo Road) and banksia woodland and scrub vegetation to the northwest.

Due consideration should be given to future development of the Mitchell Freeway Road Reserve as construction of the road and associated clearing is expected to effectively remove, or significantly reduce the risk of a bushfire threat from the west. Although this may be the case, it is unknown when the road will be developed, meaning that a bushfire occurring within this vegetation needs to be considered as part of this BMP.

Summer winds from the north can occur during the bushfire season when a low-pressure trough forms off the west coast and strong winds develop from the north or northeast. These conditions have the potential to direct a bushfire towards the project area and could contribute elevated levels of radiant heat and ember attack. Strategen considers that a fire approaching the Eastern Precinct from the northwest through banksia woodland/ scrub vegetation has the potential to be part of a landscape-scale bushfire. Vegetation to the northwest is contiguous with large unbroken tracts of vegetation extending several kilometres north towards Yanchep National Park and northwest towards the Indian Ocean. It is likely, however, that this vegetation will become fragmented in the future through future urban development along the coast and construction of Mitchell Freeway further north.

A bushfire approaching the Eastern Precinct through forest vegetation to the southeast could also support extended bushfire behaviour with potential fire runs of up to 2 km in length. The impacts from this direction are expected to be less severe than from the west due to reduced fire runs and a greater degree of fragmentation due to current agricultural practices further east.

It is acknowledged that the bushfire risk to the proposed development posed by these hazards can be managed through standard application of acceptable solutions under the Guidelines, as well as through a direct bushfire suppression response if required. This is also the case with vegetation retained and revegetation within proposed ROS and Conservation POS. Bushfire mitigation strategies applicable to the proposed development are addressed in Section 5 of this BMP.

### 4.2 Bushfire hazard issues

Examination of strategic development design in accordance with the Concept Plan and existing bushfire hazard levels has identified the following bushfire hazard issues to be considered at future planning stages:

1. It is expected that the Bush Forever areas (future POS and ROS) will contain classifiable vegetation on completion of development. This will need to be accounted for with the preparation of a Landscape Plan (as part of a Vegetation and Conservation Area Management Plan or equivalent) and updated BMP for the relevant stage of development. The future post-development BHL assessment will likely show that the Bush Forever areas will comprise entirely of classified vegetation as follows:
  - \* Bush Forever site 130 in south and south-east – Class A Forest (Extreme bushfire hazard level)
  - \* Bush Forever site 288 in north – Class D Scrub (Extreme bushfire hazard level)
  - \* Other POS and ROS areas – Class A Forest, B Woodland or Class D Scrub (Extreme bushfire hazard level).

The classifications are based on the likely retention of existing vegetation within the project area as well as potential revegetation.

A Landscape Plan will be required at future planning stages to specify areas where classifiable vegetation is retained or introduced within the future ROS and POS areas. Similarly, the Landscape Plan will need to demonstrate any areas that will meet the exclusion criteria of AS 3959 Clauses 2.2.3.2 (e) [non-vegetated areas] and/or (f) [low threat vegetation] as well as exclusions in relation to size and isolation of classified vegetation areas (Clauses [a], [b], [c] and/or [d]).

2. As the project area is bordered by bushfire prone vegetation and is likely to include areas of retained vegetation, perimeter roads are to be considered for development design to create separation between future developable lots and this vegetation. Once the POS and ROS design and species composition and density have been defined at future planning stages, a BAL Contour assessment will determine whether the perimeter roads provide sufficient separation to enable future development to achieve BAL-29 or lower, as required by acceptable solution A1.1 of the Guidelines. Similarly, separation from external bushfire hazards will be determined through preparation of a BAL Contour map.
3. As discussed above, direct vegetation interfaces should be avoided through the inclusion of perimeter roads, however, where interfaces are unavoidable, future habitable development is to be provided with sufficient separation to achieve BAL-29 or lower.

Potential setbacks from vegetation external to the project area are:

- Mitchell Freeway Reserve:
  - \* Class A Forest, Downslope >5 to 10° = 33 m (Plot 8)
  - \* Class B Woodland, Flat/Upslope = 14 m (Plot 9)
- Eastern Wanneroo Road reserve:
  - \* Class B Woodland, Downslope >0 to 5° = 17 m (Plot 4)

Potential setbacks from retained vegetation within the project area are:

- Class A Forest, Downslope >0 to 5° = 27 m (Plots 10 and 13)
- Class D Scrub, Downslope >0 to 5° = 15 m (Plot 11)
- Class B Woodland, Downslope >0 to 5° = 17 m (Plot 12)
- Class G Grassland, Downslope >0 to 5° = 9 m (Plot 15)

Due to the potential commercial nature of future development and therefore likely larger lots sizes, the setbacks required for lots with a direct vegetation interface to achieve BAL-29 or lower may be achievable. These setbacks are to be considered when finalising the development layout at future planning stages.

4. As the Eastern Precinct contains existing bushfire prone vegetation, including Class A Forest, Class B Woodland, Class D Scrub and Class G Grassland, staged construction at the subdivision stage of planning is to consider the BAL impacts from adjacent future stages that have not yet been developed. Low threat buffers may need to be implemented around the current stage of development to ensure there is no residual BAL impact from vegetation that has not yet been cleared or landscaped to achieve a low threat state.
5. The Eastern Precinct has potential to be developed as a commercial precinct. Any future land uses that are deemed to be 'high-risk' land uses (as defined in SPP 3.7) and located in an area of BAL-12.5 or higher, will be required to address Policy Measure 6.6 of SPP 3.7 which requires that high-risk land uses are located in BAL-29 areas or below and development applications for such land uses are to be accompanied by a BMP and Bushfire Risk Management Plan (BRMP).

Based on the above, Strategen considers the bushfire hazards within and adjacent to Eastern Precinct and the associated bushfire risk to be readily manageable through standard management responses outlined in the Guidelines and AS 3959. These responses will be factored into proposed development as early as possible at all stages of the planning process to ensure a suitable, compliant and effective bushfire management outcome is achieved for protection of future life, property and environmental assets.

## 5. Assessment against the bushfire protection criteria

### 5.1 Compliance table

In response to the requirements of SPP 3.7 and the Guidelines, strategic level bushfire management measures have been devised to demonstrate how the bushfire protection criteria will be met at subsequent stages of the planning process.

Table 2: Compliance table

Bushfire protection criteria	Method of compliance	Proposed bushfire management strategies
	Acceptable solutions	
Element 1: Location	A1.1 Development location	As conceptual lot layout has not yet been indicated, the development is unable to demonstrate compliance with A1.1. Once a conceptual lot layout has been determined at a later planning stage, A future BHL assessment is to be conducted to demonstrate that all future development will be located on land with either a Low or Moderate bushfire hazard level.
Element 2: Siting and design	A2.1 Asset Protection Zone	APZs sufficient to achieve a minimum of BAL-29 are to be implemented for all lots subject to a BAL above BAL-LOW. The required APZs are to be identified at future planning stages based on future structure plan/subdivision/ development design and following a BAL contour assessment. APZs are to be implemented and maintained in accordance with Schedule 1 of the Guidelines (Appendix 2) and the City's Firebreak and Fuel Load Notice (see Appendix 3).
Element 3: Vehicular access	A3.1 Two access routes.	The Concept Plan (Figure 1) demonstrates that on completion of development, the Eastern Precinct will be provided with two access point on to Pipidiny Road in the north, two access points onto Wanneroo Road in the east, one access point leading to the eastern side of Wanneroo Road (future Whiteman/Yanchep bypass) and one access point on to a future road at the southeast corner of the site which will provide access to the future Mitchell Freeway extension. Wanneroo Road provides direct access to the north and south, as well as to destinations east and west of the Eastern Precinct. Once constructed, Mitchell Freeway will also provide access to destinations to the north and south as well as to the east and west via the public road network. Therefore, the proposed development will be provided with at least two access routes. Staging of development is to ensure that at least two publicly available access routes are provided to two different destinations at all times.
	A3.2 Public road	Future public roads are to be constructed in accordance with the standards required by A3.2 (refer to Table 4 below and E3.2 of the Guidelines for technical requirements).
	A3.3 Cul-de-sac (including a dead-end-road)	Cul-de-sacs should be avoided in bushfire prone areas. If cul-de-sacs (permanent or temporary) are included in future design, they are to comply with the requirements of A3.3 (refer to Table 4 and E3.3 of the Guidelines).



Bushfire protection criteria	Method of compliance	Proposed bushfire management strategies
	Acceptable solutions	
	A3.4 Battle-axe	Battle-axes should be avoided in bushfire prone areas. If battle-axes are included in future design, they are to comply with the requirements of A3.4 (refer to Table 3 and E3.4 of the Guidelines).
	A3.5 Private driveway longer than 50 m	Where future habitable development in an area above BAL-LOW is sited more than 50 m from a public road, the private driveway is to comply with the requirements of A3.5 (see Table 3 below and E3.5 of the Guidelines). This is to be addressed at the development application stage of planning.
	A3.6 Emergency access way	Permanent EAWs may be required to provide through access to a public road, however, their inclusion is to be avoided if public roads have the opportunity to be connected through. Temporary EAWs may be required to provide through access to a public road during staged development.
	A3.7 Fire service access routes (perimeter roads)	Permanent FSARs may be required at future planning stages to provide firefighter access to the perimeter of the site to access bushfire prone vegetation where public roads are not proposed. Temporary FSARs may be required during staging of development to provide firefighter access to and around the perimeter of undeveloped portions of the project area. Permanent and temporary FSARs are required to comply with A3.7 of the Guidelines (see Table 3 below and E3.7 of the Guidelines for technical details).
	A3.8 Firebreak width	Each stage of development is required to comply with the requirements of A3.8 and the City of Wanneroo Firebreak Notice as amended (refer to Appendix 3). During staged development, 3 m wide perimeter firebreaks are to be installed immediately inside and around all external boundaries of balance lots greater than 2,000 m <sup>2</sup> in area. Due to the potential commercial nature of future development, it is expected that some lots will be greater than 2,000 m <sup>2</sup> and firebreaks will be required. POS areas larger than 2,000 m <sup>2</sup> in area will require 3 m wide perimeter firebreaks. Public roads or FSARs bordering the perimeter of the POS areas would provide sufficient and permanent firebreaks. Maintained and living turfed areas may provide a suitable alternative to formal firebreaks. Consultation with the City is to be engaged in with regard to firebreak requirements for POS at future planning stages.
Element 4: Water	A4.1 Reticulated areas	Future development is to be provided with a reticulated supply compliant with Water Corporation DS-63 requirements.
	A4.2 Non-reticulated areas	N/A Future development will be located within a reticulated area.
	A4.3 Individual lots within non-reticulated areas (Only for use if creating 1 additional lot and cannot be applied cumulatively)	N/A Future development will be located within a reticulated area.

Table 3: Vehicular access technical requirements

Technical requirement	Public road	Cul-de-sac	Battle-axe legs & private driveways longer than 50 m	Emergency access ways	Fire service access routes
Minimum trafficable surface (m)	6*	6	4	6*	6*
Horizontal distance (m)	6	6	6	6	6
Vertical clearance (m)	4.5	N/A	4.5	4.5	4.5
Maximum grade <50 m	1 in 10	1 in 10	1 in 10	1 in 10	1 in 10
Minimum weight capacity (t)	15	15	15	15	15
Maximum crossfall	1 in 33	1 in 33	1 in 33	1 in 33	1 in 33
Curves minimum inner radius	8.5	8.5	8.5	8.5	8.5

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

## 6. Responsibilities for implementation and management of the bushfire measures

This BMP has been prepared as a strategic guide to demonstrate how development compliance could be delivered at future planning stages in accordance with the Guidelines. Aside from the preparation of future BMPs to accompany future planning applications, there are no further items to implement, enforce or review at this strategic stage of the planning process.

Future BMPs prepared for future planning applications are to meet the relevant commitments outlined in this strategic level BMP, address the relevant requirements of SPP 3.7 and demonstrate in detail how the proposed development will incorporate the relevant acceptable solutions to meet the performance requirements of the Guidelines. Future BMPs are to include the following detailed information:

- indicative (strategic level) or proposed (subdivision) lot layout, including POS and ROS areas
- detailed landscaping design in regard to POS
- post development classified vegetation extent and effective slope
- BAL contour map demonstrating that proposed development areas will achieve BAL–29 or lower
- width and alignment of compliant APZs
- confirmation of how bushfire management will be addressed during development staging
- proposed approach to fuel management or AS 3959 application in response to on-site POS or easements (if and where required)
- vehicular access provisions, including demonstration that a minimum of two access routes will be achieved for each stage of development in accordance with Acceptable Solution A3.1
- water supply provisions with regards to reticulated water
- future requirements for any future vulnerable land uses, such as provision of a Bushfire Emergency Evacuation Plan
- future requirements for any future high-risk land uses, such as provision of a Bushfire Risk Management Plan
- provisions for notification on Title for any future lots with a rating of BAL–12.5 or greater as a condition of subdivision
- compliance requirements with the current City annual firebreak notice
- construction of Class 1, 2, 3 or associated 10a buildings in accordance with AS 3959 to assessed BAL rating
- requirements for BMP and BAL compliance as conditions of subdivision
- compliance with performance principles of the bushfire protection criteria
- proposed implementation and audit program outlining all measures requiring implementation and the appropriate timing and responsibilities for implementation.

On the basis of the information contained in this BMP, Strategen considers the bushfire hazards within and adjacent to the Eastern Precinct and the associated bushfire risk is readily manageable through standard management responses outlined in the Guidelines and AS 3959. Strategen considers that on implementation of the proposed management measures, the project area will be able to be developed with a manageable level of bushfire risk whilst maintaining full compliance with the Guidelines and AS 3959.



**Appendix 1**  
**Vegetation photos**





Photo: 1a

<b>Plot number</b>		Plot 1
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class D Scrub
	<b>Post-development</b>	Class D Scrub
<b>Description / justification for classification</b>		Vegetation with a continuous vertical and horizontal structure and greater than 2 m in height to west of Beonaddy Road.



Photo: 1b

<b>Plot number</b>		Plot 1
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class D Scrub
	<b>Post-development</b>	Class D Scrub
<b>Description / justification for classification</b>		Vegetation with a continuous vertical and horizontal structure and greater than 2 m in height to west of Beonaddy Road.

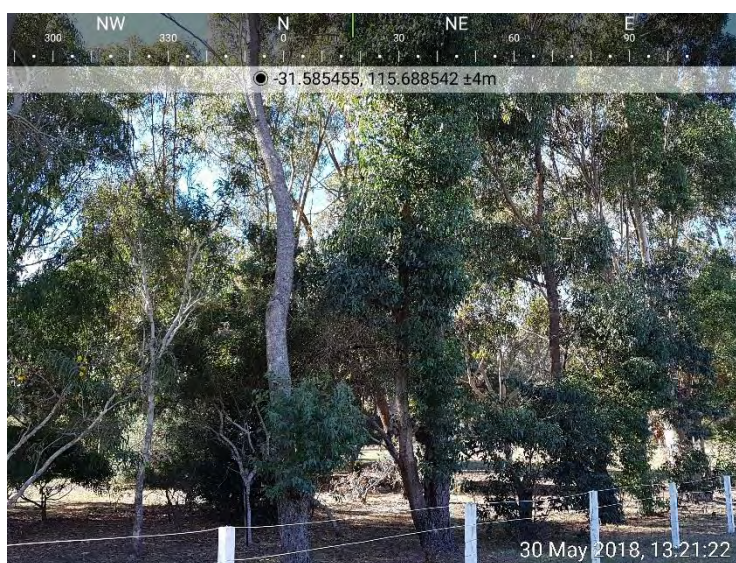


Photo: 2a

<b>Plot number</b>		Plot 2
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class A Forest
	<b>Post-development</b>	Class A Forest
<b>Description / justification for classification</b>		Vegetation to the north and east of Pipidinny Road has a tiered structure with shrub understorey (in various states of management) and eucalypt overstorey. Canopy cover greater than 30%.



Photo: 2b

<b>Plot number</b>		Plot 2
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class A Forest
	<b>Post-development</b>	Class A Forest
<b>Description / justification for classification</b>		Vegetation to the north and east of Pipidinny Road has a tiered structure with shrub understorey (in various states of management) and eucalypt overstorey. Canopy cover greater than 30%.





Photo: 2c

<b>Plot number</b>		Plot 2
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class A Forest
	<b>Post-development</b>	Class A Forest
<b>Description / justification for classification</b>		Vegetation to the north and east of Pipidinny Road has a tiered structure with shrub understorey (in various states of management) and eucalypt overstorey. Canopy cover greater than 30%.



Photo: 3a

<b>Plot number</b>		Plot 3
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class G Grassland
	<b>Post-development</b>	Class G Grassland
<b>Description / justification for classification</b>		Grassland within rural residential lots to the north of Pipidinny Road predominantly managed in a low threat state. Classified as Class G Grassland as a precautionary measure.



Photo: 4a

<b>Plot number</b>		Plot 4
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class B Woodland
	<b>Post-development</b>	Class B Woodland
<b>Description / justification for classification</b>		Vegetation comprises a combination of Class B Woodland (banksia woodland) and Class D Scrub.



Photo: 4b

<b>Plot number</b>		Plot 4
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class B Woodland
	<b>Post-development</b>	Class B Woodland
<b>Description / justification for classification</b>		Vegetation comprises a combination of Class B Woodland (banksia woodland) and Class D Scrub. Photo shows vegetation with canopy cover >30% and scrub understorey.



Photo: 4c

<b>Plot number</b>		Plot 4c
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class B Woodland
	<b>Post-development</b>	Class B Woodland
<b>Description / justification for classification</b>		Vegetation comprises a combination of Class B Woodland (banksia woodland) and Class D Scrub. Photo shows vegetation with canopy cover >30% and scrub understorey.

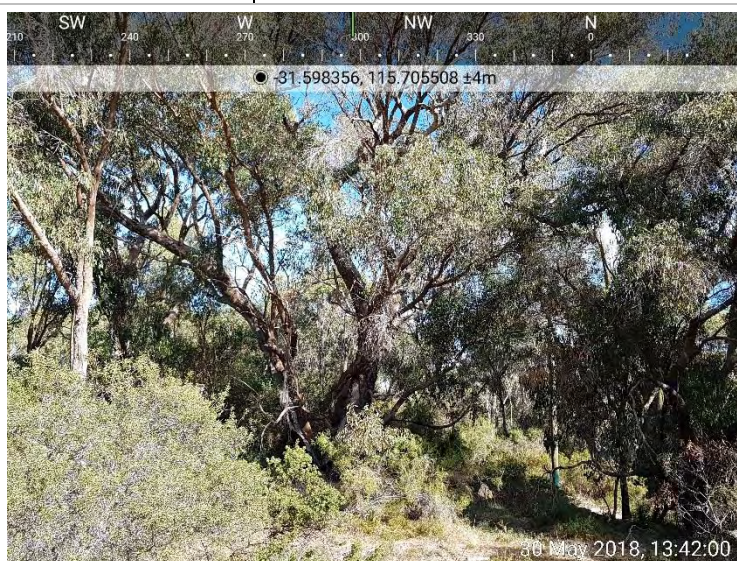


Photo: 6a

<b>Plot number</b>		Plot 6
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class A Forest
	<b>Post-development</b>	Class A Forest
<b>Description / justification for classification</b>		Vegetation on west and east sides of Wanneroo Road and within the Wanneroo Road reserve comprises unmanaged forest with a tiered structure and a shrub understorey. Canopy cover exceeds 30%.

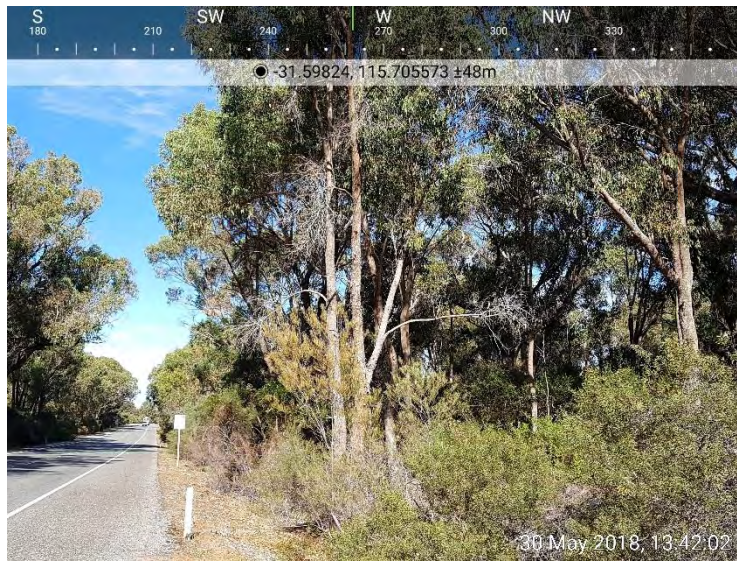


Photo: 6b

<b>Plot number</b>		Plot 6
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class A Forest
	<b>Post-development</b>	Class A Forest
<b>Description / justification for classification</b>		Vegetation on west and east sides of Wanneroo Road and within the Wanneroo Road reserve comprises unmanaged forest with a tiered structure and a shrub understorey. Canopy cover exceeds 30%.



Photo: 6c

<b>Plot number</b>		Plot 6
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class A Forest
	<b>Post-development</b>	Class A Forest
<b>Description / justification for classification</b>		Vegetation on west and east sides of Wanneroo Road and within the Wanneroo Road reserve comprises unmanaged forest with a tiered structure and a shrub understorey. Canopy cover exceeds 30%.



Photo: 7a

<b>Plot number</b>		Plot 7
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class B Woodland
	<b>Post-development</b>	Class B Woodland
<b>Description / justification for classification</b>		Vegetation to south of project area has a predominantly scrub structure with a fairly continuous vertical and horizontal structure. Classified as Class B Woodland as a precautionary measure based on surrounding mature vegetation.

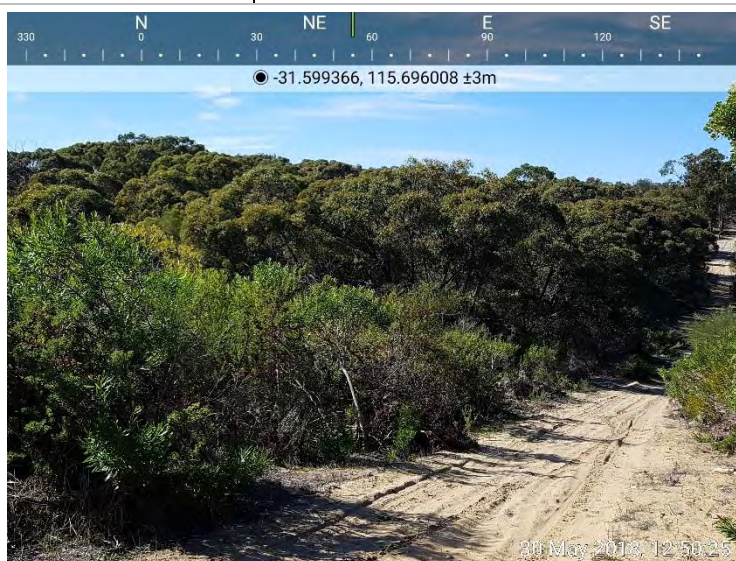


Photo: 8a

<b>Plot number</b>		Plot 8
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class A Forest
	<b>Post-development</b>	Class A Forest – expected to be removed with future development of Mitchell Freeway Reserve
<b>Description / justification for classification</b>		Vegetation has a tiered structure with a dense scrub understorey and eucalypt canopy with foliage cover exceeding 30%.

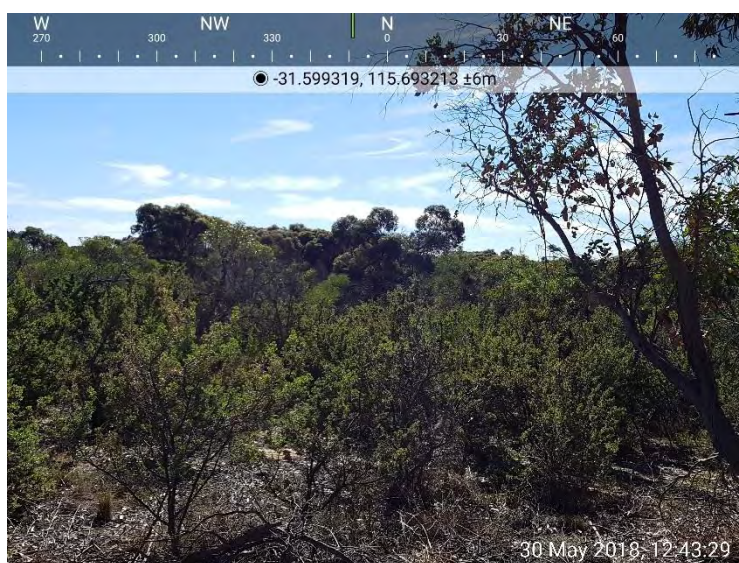


Photo ID: 8b

<b>Plot number</b>		Plot 8
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class A Forest
	<b>Post-development</b>	Class A Forest – expected to be removed with future development of Mitchell Freeway Reserve
<b>Description / justification for classification</b>		Vegetation has a tiered structure with a dense scrub understorey and eucalypt canopy with foliage cover exceeding 30%.

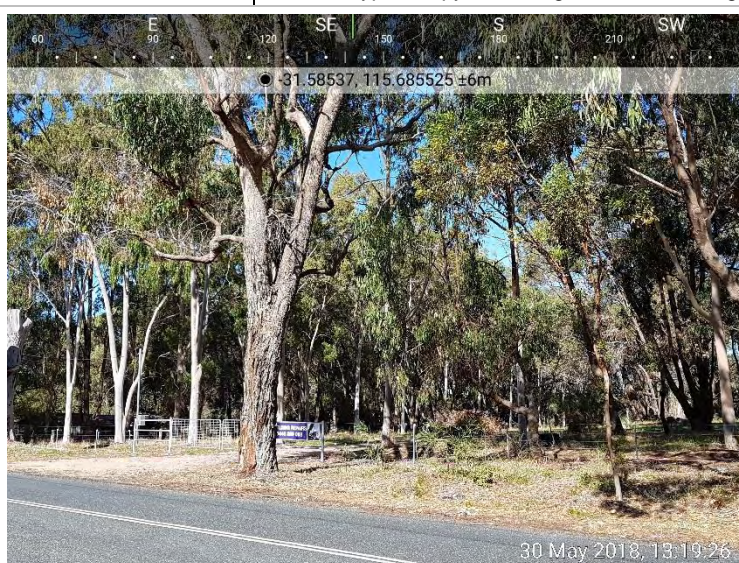


Photo ID: 10a

<b>Plot number</b>		Plot 10
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class A Forest
	<b>Post-development</b>	Exclusions 2.2.3.2 (e) & (f)
<b>Description / justification for classification</b>		Vegetation in north east of project area has a tiered structure with shrub understorey (in various states of management) and eucalypt overstorey. Canopy cover greater than 30%. Vegetation to be removed to accommodate future urban development.

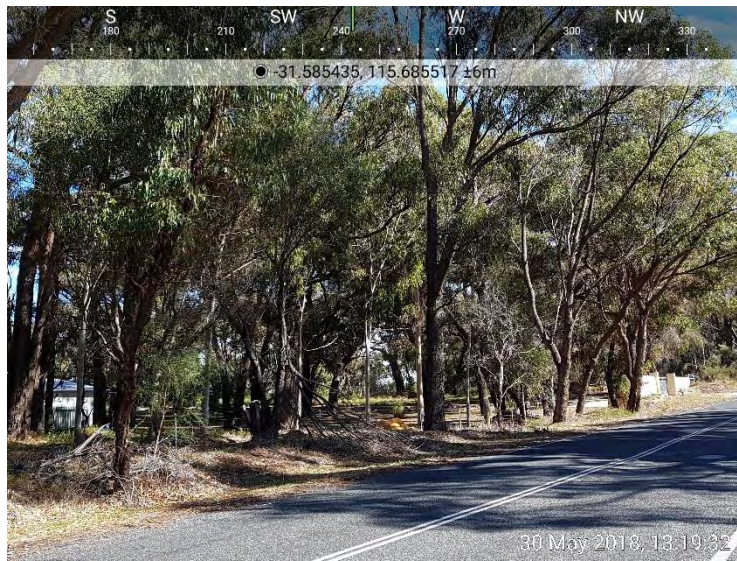


Photo ID: 10b

<b>Plot number</b>		Plot 10
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class A Forest
	<b>Post-development</b>	Exclusions 2.2.3.2 (e) & (f)
<b>Description / justification for classification</b>		Vegetation in north east of project area has a tiered structure with shrub understorey (in various states of management) and eucalypt overstorey. Canopy cover greater than 30%. Vegetation to be removed to accommodate future urban development.



Photo ID: 10c

<b>Plot number</b>		Plot 10
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class A Forest
	<b>Post-development</b>	Exclusions 2.2.3.2 (e) & (f)
<b>Description / justification for classification</b>		Vegetation in north east of project area has a tiered structure with shrub understorey (in various states of management) and eucalypt overstorey. Canopy cover greater than 30%. Vegetation to be removed to accommodate future urban development.



Photo ID: 11a

<b>Plot number</b>		Plot 11
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class D Scrub
	<b>Post-development</b>	Class D Scrub
<b>Description / justification for classification</b>		Vegetation within Bush Forever Site 288 and future ROS currently comprised open scrub. The post-development BHL assessment assumes that the entire area of ROS will be revegetated to Class D Scrub.



Photo ID: 11b

<b>Plot number</b>		Plot 11
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class D Scrub
	<b>Post-development</b>	Class D Scrub
<b>Description / justification for classification</b>		Photo shows southern end of Plot, adjacent to Bluewater Drive. Plot Vegetation within Bush Forever Site 288 and future ROS currently comprised open scrub. The post-development BHL assessment assumes that the entire area of ROS will be revegetated to Class D Scrub.



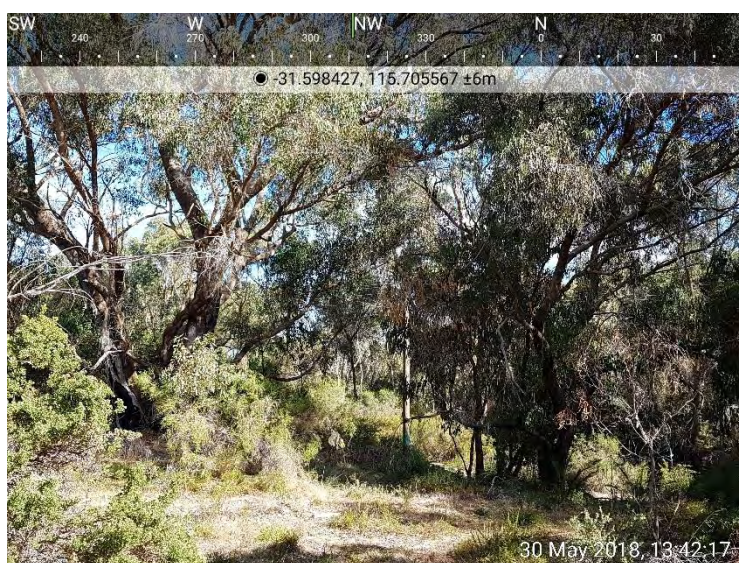


Photo ID: 13a

<b>Plot number</b>		Plot 13
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class A Forest
	<b>Post-development</b>	Class A Forest
<b>Description / justification for classification</b>		Vegetation within ROS proposed within south east of project area. Vegetation comprises unmanaged forest with a tiered structure and a shrub understorey. Canopy cover exceeds 30%.



Photo ID: 14a

<b>Plot number</b>		Plot 14
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Exclusions 2.2.3.2 (e) & (f)
	<b>Post-development</b>	Exclusions 2.2.3.2 (e) & (f)
<b>Description / justification for classification</b>		Developed portion of Lot 2 (No. 3049) Wanneroo Road consisting of greenhouses and non-vegetated hardstand areas.. To be removed as part of future development within project area.



Photo ID: 15a

<b>Plot number</b>		Plot 15
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class G Grassland (Open Woodland)
	<b>Post-development</b>	Exclusions 2.2.3.2 (e) & (f)
<b>Description / justification for classification</b>		Managed and unmanaged grassland within project area to be removed to accommodate future urban development.



Photo ID: 15b

<b>Plot number</b>		Plot 15
<b>Vegetation classification or exclusion clause</b>	<b>Existing</b>	Class G Grassland (Open Woodland)
	<b>Post-development</b>	Exclusions 2.2.3.2 (e) & (f)
<b>Description / justification for classification</b>		Managed and unmanaged grassland within project area to be removed to accommodate future urban development.

**Appendix 2**  
**APZ Standards (the Guidelines)**



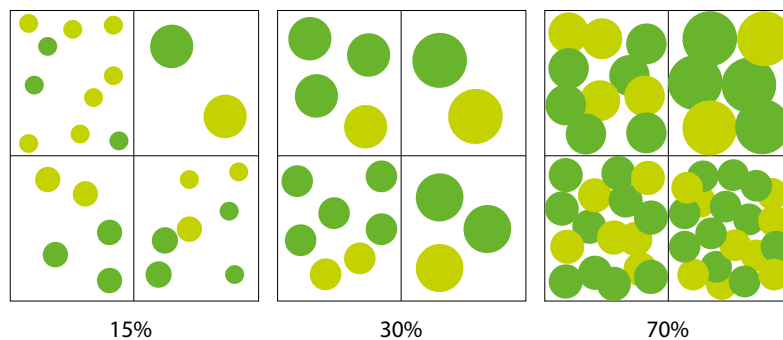
Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
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## ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

### 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 18: 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 5m<sup>2</sup> 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.



**Appendix 3**  
**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 2000m<sup>2</sup> or more

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

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

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

### 3. Buildings

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

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

### Penalty

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

### DATES TO REMEMBER

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

## When and how to obtain a fire permit

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

### WANNEROO ANIMAL CARE CENTRE

Located at the rear of the Ashby Operations Centre, 1204 Wanneroo Road, Ashby

The City's Rangers / Fire Control Officers are available to issue permits 7 days a week\* from 4pm - 6pm

\*Except Good Friday

### CITY OF WANNEROO CIVIC CENTRE

23 Dundee 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.



City of  
Wanneroo

23 Dundee 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



City of  
Wanneroo

## Keeping your home safe from fire

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

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

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

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

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

## When and how to burn

### NO BURNING FROM 1 DECEMBER - 31 MARCH

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

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

### GARDEN RUBBISH AND REFUSE

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

Fire danger rating signs are located at the following locations:

- Corner of Joondalup Drive and Wanneroo Road
- Wanneroo Road, south of the Yanchep Beach Road turn off
- Wanneroo Road, Carabooda • Marmion Avenue, Jindalee
- Neaves Road, Mariginiup • Old Yanchep Road, Pinjar
- Gnaragara 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