



# LOT 261 HONEYMYRTLE LOOP, FORESTDALE WA

## GEOFF & REBECCA HOLTMEULEN

### BUSHFIRE MANAGEMENT PLAN

Site address:

Site visit: Yes  No

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

Report author or 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:  Accreditation expiry: Month  Year

Bushfire management plan version number:

Bushfire management plan date: Day  Month  Year

Client/business name:

	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 bushfire protection criteria elements)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

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

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

## EXECUTIVE SUMMARY TABLE

PREPARED FOR					
<b>COMPANY:</b>	ACTIVA DEVELOPMENTS (JASON JANSSEN) FOR OWNER				
<b>NAME OWNER:</b>	GEOFF & REBECCA HOLTMEULEN				
<b>CONTACT:</b>	ACTIVA DEVELOPMENTS:	(08) 94 186 600			
	DIRECTOR JASON JANSSEN:	0412 373 404			
<b>ADDRESS:</b>	LOT 261 HONEYMYRTLE LOOP, FORESTDALE				
PREPARED BY					
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<b>CONTRACT NO:</b>	2017-1197				
<b>AUTHOR:</b>	ROBERT TURNER				
<b>BPAD NO:</b>	36103				
SITE DETAILS					
<b>SITE ADDRESS:</b>	LOT 261 HONEYMYRTLE LOOP, FORESTDALE				
<b>LOCAL GOVERNMENT AREA:</b>	CITY OF ARMADALE				
PLANNING APPROVAL APPLICATION					
APPLICATION	INFORMATION REQUIREMENTS		SCHEME	ZONING	
AMENDMENT / RELOCATION OF DEVELOPMENT ENVELOPE	BUSHFIRE MANAGEMENT PLAN (BMP)		TPS4	Rural Living 2	
DETERMINED BAL					
DEVELOPMENT ENVELOPE	VEGETATION CLASSIFICATION	FDI	EFFECTIVE SLOPE	SEPARATION DISTANCE	BAL
Existing	Woodland	80	FLAT/ ALL UPSLOPE	22.1 m (Woodland)	19
Proposed	Woodland	80	FLAT/ ALL UPSLOPE	25 m (Woodland)	19



## EXECUTIVE SUMMARY STATEMENT

This document has presented an assessment for City of Armadale Planning Approval of existing lot 261 (“subject land”) development envelope relocation in accordance with City of Armadale Local Planning Policy 2.1 and the requirements of State Planning Policy 3.7 and its Guidelines for Planning in Bushfire Prone Areas (WAPC, V1.2 August 2017) including assessment against each of the Bushfire Protection Criteria.

As outlined in the detail following, development within the proposed relocated building envelope would not render the protection of the property from the risk of bushfire any more difficult to achieve than would be the case with the existing building envelope. In fact, this document will highlight a slight reduction or improvement to the overall radiant heat (BAL) exposure on the relocated building envelope. There is no significant, measurable difference between the two building envelopes when addressing SPP3.7 Bushfire Protection Criteria.

## DOCUMENT TRACKING

DATE SUBMITTED	VERSION	AUTHOR/REVIEWER AND ACCREDITATION DETAILS	PURPOSE OF RELEASE	COMMENTS
26/12/2017	1.1	Rob Turner BPAD L2 -36103	Activa Developments and client review. City of Armadale consideration in support of planning approval application	



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Bushfire Ready  
ABN: 70 897 262 379



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**BUSHFIRE MANAGEMENT PLAN  
LOT 261 HONEYMYRTLE LOOP, FORESTDALE**

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## 1. BACKGROUND INFORMATION

### 1.1. QUALIFIED PERSONS

This document, and associated information contained within, has been compiled by a suitably qualified person/s (the author/s). A summary of the qualified person/s' accreditation and declaration is outlined in Table 1 below. In signing this document the author affirms that this Bushfire Management Statement (BMS) meets the requirements of *State Planning Policy 3.7 (SPP 3.7)* (WAPC, 2015a) and supersedes all previous BMP's for the site.

*Table 1: Qualified Persons Summary and Declaration.*

QUALIFIED PERSONS DECLARATION	
Author:	Robert Turner (BPAD Level 2 -36103)
Signature:	 
Date:	15-12-2017
Checking Practitioner:	N/A
Comments:	N/A
Signature:	N/A
Date:	N/A

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## 1.2. BACKGROUND

On 7 December 2015 the State Government introduced by Gazette, a state map of Bushfire prone areas by order under the *Fire and Emergency Services Act 1998*, and introduced development controls in Bushfire prone areas through the *Planning and Development Act 2005*. These controls were in turn guided by Planning in Bushfire Prone Areas and Guidelines for Planning in Bushfire Prone Areas. The State Planning Policy and Guidelines now form the foundation for fire risk management planning in WA at a community and land development level.

The “subject land” is within a proclaimed bushfire prone area and under the provisions of the Guidelines for Planning in Bushfire Prone Areas residential development proposals are to be accompanied by a Bushfire Attack Level assessment (BAL assessment) to determine the standard of construction to ensure that appropriate Asset Protection Zones (APZ) can be provided within the boundaries of the property. The guidelines also set out a range of Bushfire Protection Criteria that need to be addressed at various stages of the planning process, to provide an appropriate level of protection to life and property from bush fires and avoid inappropriately located or designed land use and development on land where a bush fire risk is identified.

## 1.3. PLANNING CONTEXT

Under the City of Armadale Town Planning Scheme No. 4, Lot 261 is zoned Rural Living 2. Development Envelopes in the City of Armadale generally apply to rural residential areas as in this case for the subject land.

Local Planning Policy 2.1 – “Establishment or Amendment of Development Envelope Location” states development envelopes are established in accordance with Clause 5.7 of Town Planning Scheme No.4 and prohibit the clearing of remnant vegetation outside the designated envelope, except in the following instances:

- as necessary for the establishment of an approved vehicular access from the adjacent street to the designated development envelope;
- as required to satisfy necessary bush fire protection measures as determined by the City or other relevant authority; or
- as otherwise approved by the City in accordance with the provisions of clause

Development Envelopes are determined by the developer in conjunction with the City at the time of subdivision, or by the City’s Planning Officers in respect to existing lots. Purchasers of vacant lots may sometimes wish to nominate or relocate the building envelope to better suit their development expectations. Building Envelopes can be modified through a Planning Approval issued by the City. Considerations in assessing applications for the relocation of Building Envelopes include the protection of vegetation and amenity, as well as consideration of bushfire protection requirements as outlined in State Planning Policy 3.7 Planning in Bushfire Prone Areas (SPP3.7) and its guidelines “Planning in Bushfire Prone Areas V1.3”.



#### 1.4. SITE DESCRIPTION

A geographical reference to Lot 261 Honeymyrtle Loop Forestdale is shown in Figure 2. The subject land is 3.0118ha and is located in the far SW corner of the City of Armadale Local Government Area approximately 20km WSW of Armadale City Central.

The subject land and all land around the general vicinity is declared as bushfire prone as per the States Bushfire Prone Map shown in figure 1. The surrounding landscape is generally flat on the Swan Coastal Plain with classified vegetation of grassland, woodland and scrubland. The slope under the classified vegetation in this area is mostly flat coastal plain country.

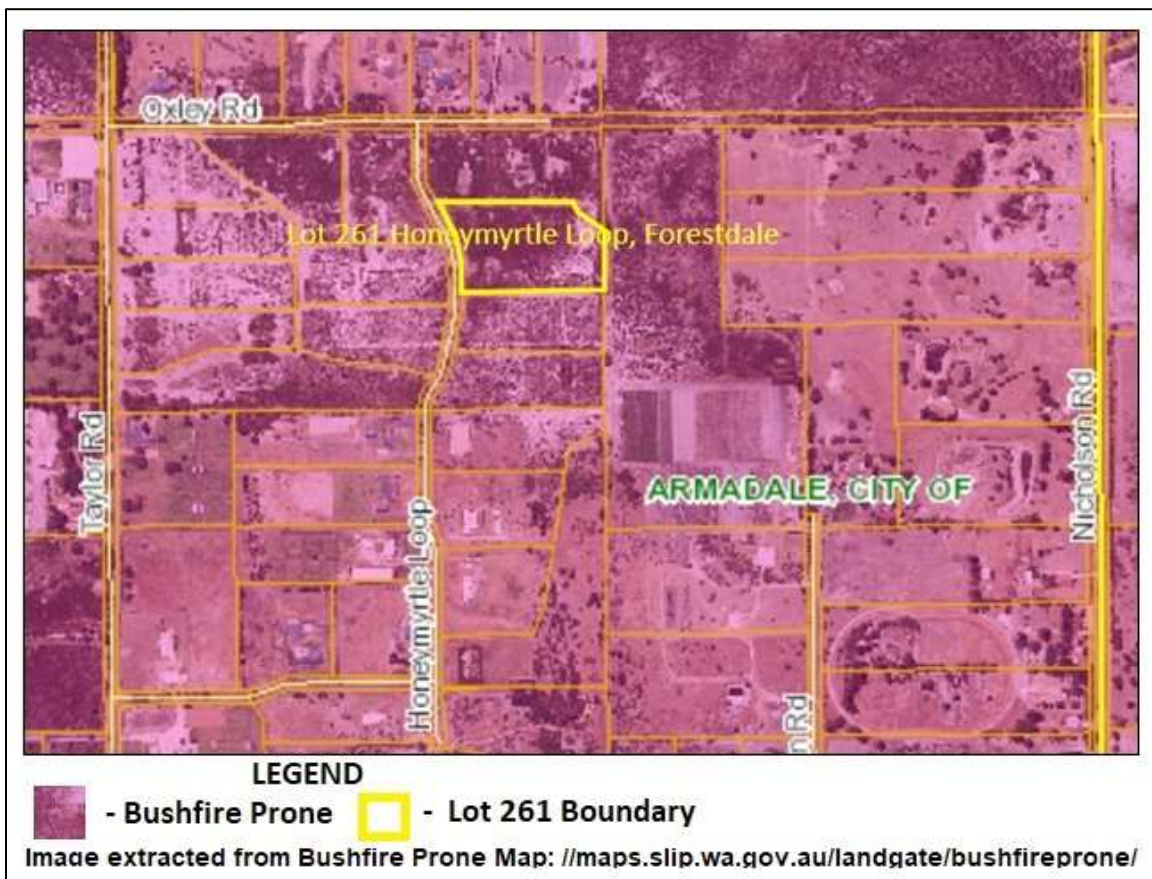
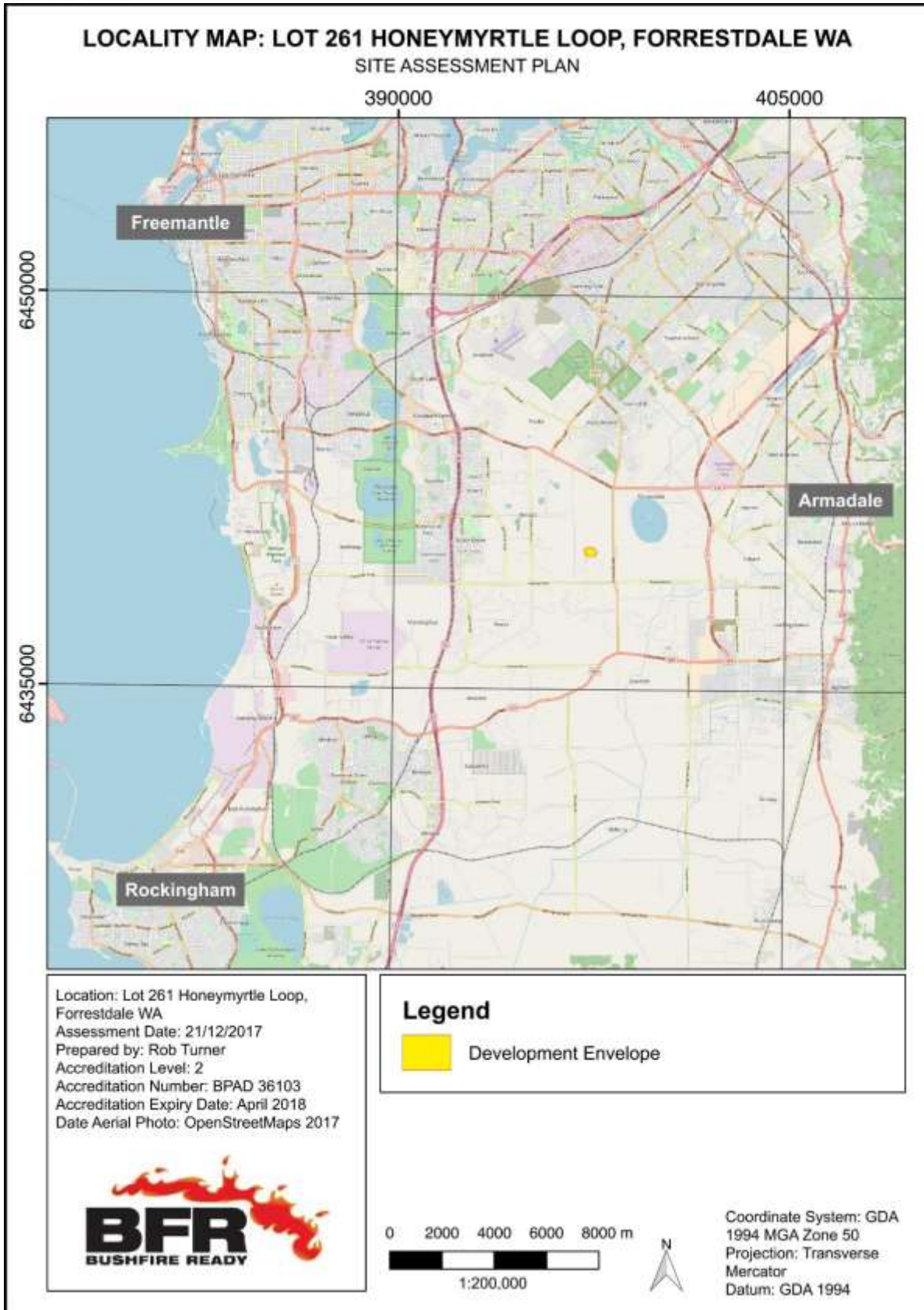


Figure 1: State Bushfire Prone Mapping



## 1.5. PROPOSED ACCEPTABLE SOLUTIONS

All bushfire related design criteria are addressed in Section 3.1 of this report. A summary of the Bushfire Protection Criteria solutions and compliance is summarised in Table 2 below.

*Table 2: Bushfire Design Criteria Solution and Compliance Summary.*

<b>BUSHFIRE DESIGN CRITERIA SOLUTION AND COMPLIANCE SUMMARY</b>	
Acceptable Solutions Applied:	A1.1, A2.1, A3.1 and A4.1
Acceptable Solutions Not Applicable:	A3.2, A3.3, A3.4, A3.5, A3.6, A3.7, A3.8, A4.2 and A4.3
Non-Compliances:	None








## 2. SPATIAL CONSIDERATIONS OF BUSHFIRE THREAT

### 2.1. VEGETATION CLASSIFICATION AND AS3959-2009 EXCLUSION CLAUSE JUSTIFICATION

All vegetation within 150m from the site has been identified and classified in accordance with AS3959:2009 (Standards Australia, 2009a) vegetation structures, including low threat areas are summarised in *Table 3* below.

*Table 3: Classified and Excluded Vegetation (AS3595:2009)*

DESCRIPTION CLASSIFICATION	CLASSIFIED VEGETATION PHOTOS
<p>Photo 1</p> <p>Woodland – B</p> <p>Mature native eucalyptus scattered over scrub. 10-20 m in height. 15% canopy cover threshold reached.. Grassy ground layer in places of human disturbance. Vertical structure to veg has been modified. T-tree and shrub species in the mid storey.</p>	
<p>Photo 2</p> <p>Woodland – B</p> <p>Northern firebreak. Mature native eucalyptus scattered over scrub. 10-20 m in height. 15% canopy cover threshold reached.. Grassy ground layer in places of human disturbance. Vertical structure to veg has been modified. T-tree and paperbark in the mid storey. Some revegetation in places.</p>	

<p>Photo 3</p> <p>Woodland – B</p> <p>Mature eastern states gum trees with some native scrub along the eastern fire break. 10-20 m in height. 15% canopy cover threshold reached.</p>	
<p>Photo 4</p> <p>Woodland – B</p> <p>Mature eastern states gum trees with some native scrub along the eastern fire break. 10-20 m in height. 15% canopy cover threshold reached.</p>	
<p>Photo 5</p> <p>Scrubland - D</p> <p>&gt;2m in height vegetation in this low lying seasonally inundated area. Some areas of veg disturbance open up to sand. Little grass intrusion. Some banksia and t-tree mid storey with reeds at the surface.</p>	




<p>Photo 6</p> <p>Scrubland - D</p> <p>&gt;2m in height vegetation in this low lying seasonally inundated area. Some areas of veg disturbance open up to sand. Little grass intrusion. Some banksia and t-tree mid storey with reeds at the surface.</p>	 <p>Open scrubland flat site          Bushfire Ready Consulting</p> <p>Lot 261 Honeymyrtle Loop Forestdale          20 Dec 2017 11:59</p>
<p>Photo 7</p> <p>Scrubland - D</p> <p>&gt;2m in height vegetation in this low lying seasonally inundated area. Some areas of veg disturbance open up to sand. Little grass intrusion. Some banksia and t-tree mid storey with reeds at the surface.</p>	 <p>Open scrubland flat site          Bushfire Ready Consulting</p> <p>Lot 261 Honeymyrtle Loop Forestdale          20 Dec 2017 12:00</p>
<p>Photo 8</p> <p>Exclusion clause 2.2.3.2 (e) with Woodland –D each side of Honeymyrtle Loop.</p>	 <p>Access to property Honeymyrtle loop          Bushfire Ready Consulting</p> <p>Lot 261 Honeymyrtle Loop Forestdale          20 Dec 2017 12:00</p>

Table 4: Vegetation classification

PLOT	CANOPY HEIGHT (m)	CANOPY COVER (%)	UNDERSTORY COMPOSITION	APPLIED VEGETATION CLASSIFICATION (AS3959:2009)
1	<5m	50-70%	Distinct lack of tree species (<15%). T-tree, paperbark and shrub species dominate these wet seasonally inundated areas	D - Scrubland
2	15 - <30	<30%	Open woodland with eucalyptus over-storey of Jarrah, Marri and gum trees with scrub under-storey	B – Woodland

## 2.1 SLOPE AND SEPARATION DISTANCE

The potential bushfire impact to the proposed development from each of the identified vegetation plots is summarised in *Table 5 6* below. The slope and separation distances outlined in *Table 5 6* were obtained using a Nikon Forestry Pro Laser Range Finder and validated via manual measurement and calculations. Effective slope, vegetation classifications, separation distances, and vegetation structure are required inputs for the method 1 BAL calculation.

Table 5: Inputs for BAL calculation

PLOT NUMBER	APPLIED CLASSIFICATION (AS3959:2009)	EFFECTIVE SLOPE (DEGREES)	EXISTING DEVELOPMENT SEPARATION DISTANCE AND BAL (AS3959-2009)	PROPOSED DEVELOPMENT SEPARATION DISTANCE AND BAL (AS3959-2009)
1	Scrubland - D	Flat	>50 m - BAL-12.5	>50 m - BAL-12.5
2	Woodland - B	Flat	22.1 m - BAL-19	25 m - BAL-19

Native vegetation modification and clearing is required to obtain the necessary separation distances for required BAL (a compliant APZ is not in place). It is assumed that the Lot will be managed to a minimal fuel state with AS3595 exclusion clauses applied.



## 2.2 EXCLUDED VEGETATION PLOTS

As stated in AS3959:2009 section 2.2.3.2 (Standards Australia, 2009a), a BAL is classified BAL—LOW where the vegetation is one or a combination of any of the following clauses:

- a) Vegetation of any type that is more than 100m from the site;
- b) Single areas of vegetation less than 1ha in area and not within 100m of other areas of vegetation being classified;
- c) Multiple areas of vegetation less than 0.25ha in area and not within 20m of the site, or each other;
- d) Strips of vegetation less than 20m in width (measured perpendicular to the elevation exposed to the strip of vegetation) regardless of length and not within 20m of the site or each other, or other areas of vegetation being classified;
- e) Non-vegetated areas, including waterways, roads, footpaths, buildings and rocky outcrops; or
- f) Low threat vegetation, including managed grassland, maintained lawns, golf courses, maintained public reserves and parklands, vineyards, orchards, cultivated gardens, commercial nurseries, nature strips and windbreaks.

Based on the exclusion clauses listed above, the “low threat vegetation” and “non-vegetated” areas around and within Lot 261 were excluded using clauses (e). A graphical summary of this exclusion is shown in **Error! Reference source not found.**

## 2.3 BUSHFIRE ATTACK LEVEL

The Determined Bushfire Attack Level (highest BAL) for the two development envelopes has been determined in accordance with clause 2.2.6 of AS 3959-2009. A comparison of the two potential BAL’s for the site is listed below in table 6.

Determined Maximum Bushfire Attack Level (BAL) for both development envelope sites is BAL-19 however BAL-12.5 is 91% achievable at the existing development envelope and 98% achievable at the proposed envelope site. This represents a potential 7% improvement in the proposed development envelopes potential radiant heat flux exposure compared to the existing envelope.

*Table 6: Build envelope BAL comparison*

Bushfire Attack Level	Existing Development Envelope (% Area)	Proposed Development Envelope (% Area)
BAL-12.5	91%	98%
BAL-19	9%	2%



VEGETATION CLASSIFICATION MAP: LOT 261 HONEYMYRTLE LOOP,  
 FORRESTDALÉ WA  
 SITE ASSESSMENT PLAN

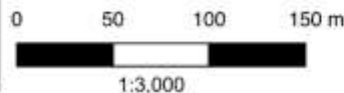


Location: Lot 261 Honey Myrtle Loop,  
 Forrestdale WA  
 Assessment Date: 21/12/2017  
 Prepared by: Rob Turner  
 Accreditation Level: 2  
 Accreditation Number: BPAD 36103  
 Accreditation Expiry Date: April 2018  
 Date Aerial Photo: October 2017



**Legend**

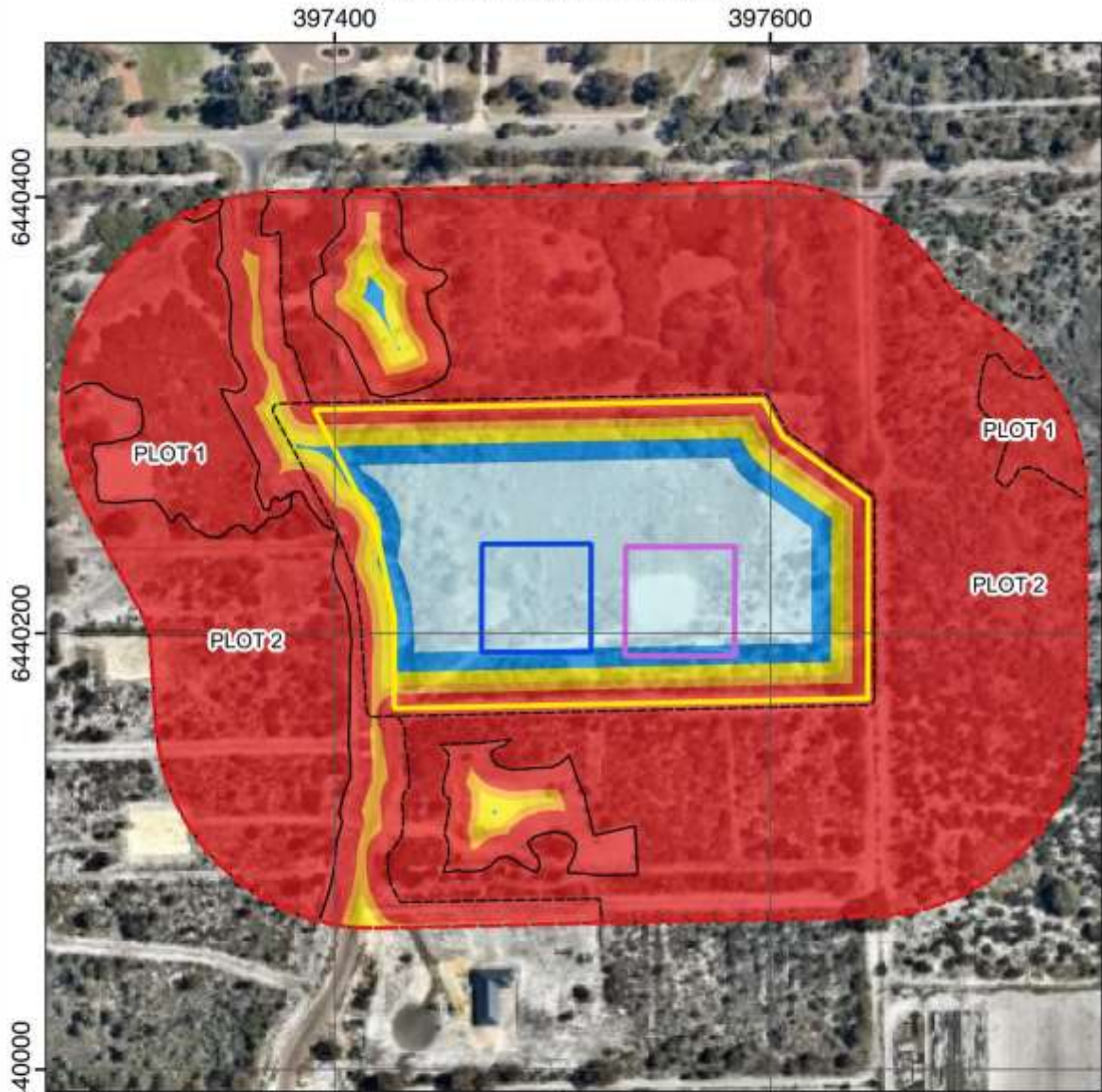
- |                               |                               |
|-------------------------------|-------------------------------|
| Assessment Area (150m buffer) | <b>Classified Vegetation:</b> |
| Lot Boundary                  | B. Woodland (flat)            |
| Proposed Envelope             | D. Scrub (flat)               |
| Existing Envelope             | Excluded                      |
| Classified Vegetation         | Photo Number and Direction    |



Coordinate System: GDA 1994  
 MGA Zone 50  
 Projection: Transverse Mercator  
 Datum: GDA 1994

**SITE BAL CONTOUR MAP: LOT 261 HONEYMYRTLE LOOP, FORRESTDALE WA**

BUSHFIRE ATTACK LEVEL CONTOURS



Location: Lot 261 Honeymyrtle Loop,  
 Forrestdale WA  
 Assessment Date: 21/12/2017  
 Prepared by: Rob Turner  
 Accreditation Level: 2  
 Accreditation Number: BPAD 36103  
 Accreditation Expiry Date: April 2018  
 Date Aerial Photo: October 2017



**Legend**

- Assessment Area (100m buffer)
- Lot Boundary
- Proposed Envelope
- Existing Envelope
- Classified Vegetation

**Bushfire Attack Levels:**

- BAL-FZ
- BAL-40
- BAL-29
- BAL-19
- BAL-12.5

0 25 50 75 100 m

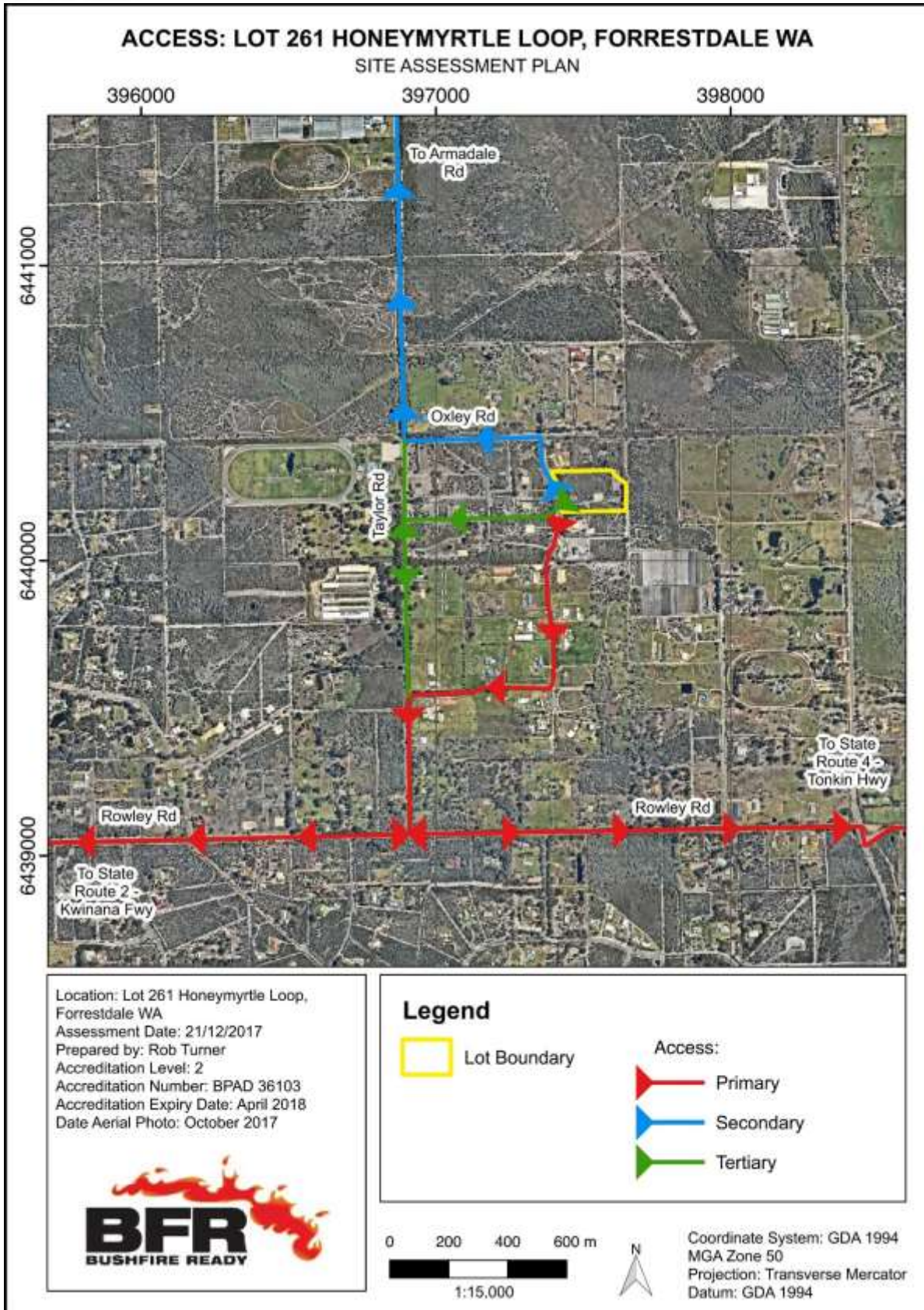


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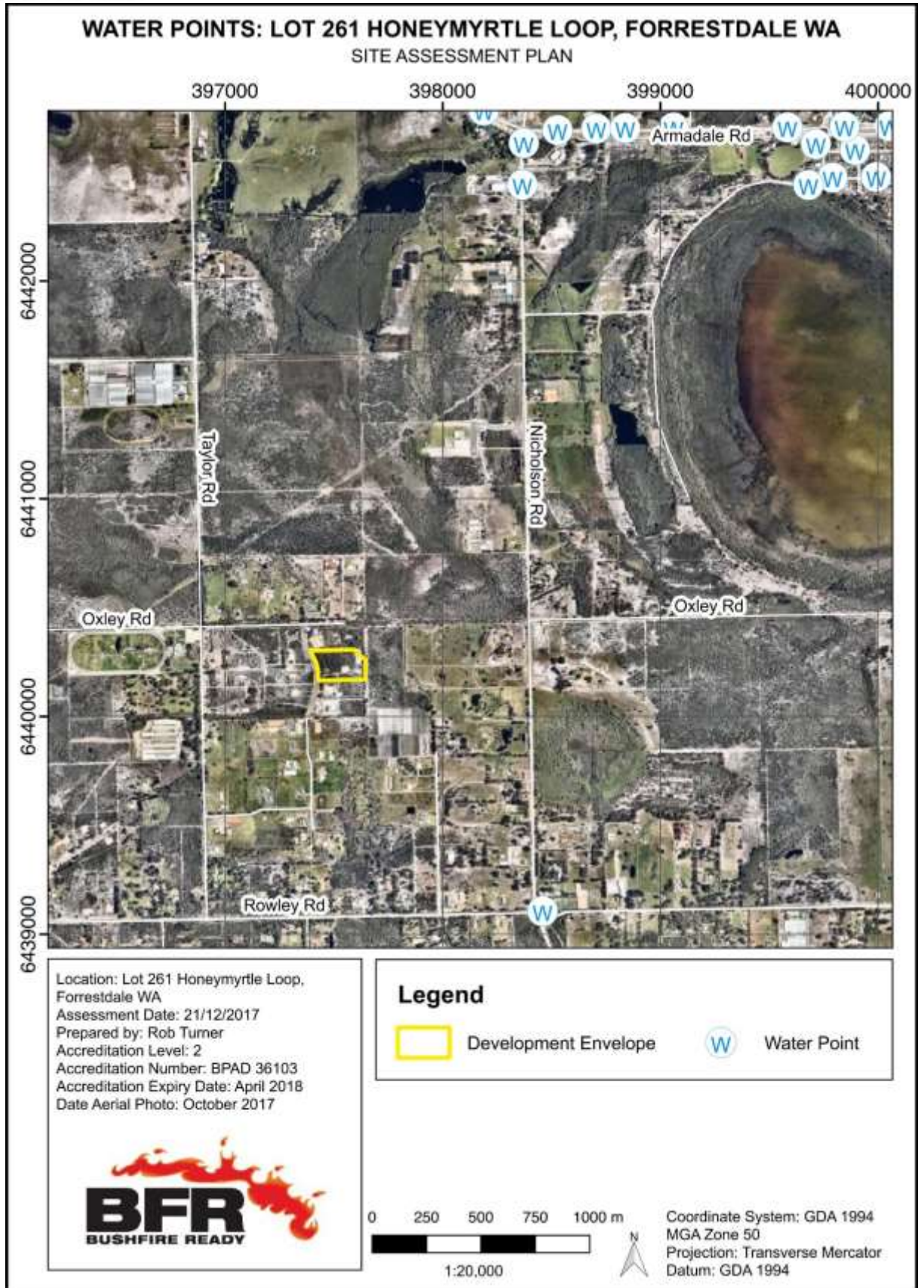


Coordinate System: GDA 1994  
 MGA Zone 50  
 Projection: Transverse Mercator  
 Datum: GDA 1994









### 3. BUSHFIRE RISK MANAGEMENT MEASURES

#### 3.1 BUSHFIRE PROTECTION CRITERIA

The Acceptable Solutions outlined below are intended to reduce the risk to the occupier of the land. The assessment of the four elements outlined are the basis of the bushfire risk management measures and a comparative assessment against the existing and proposed development envelope sites is outlined below. The Acceptable Solutions recommended here are intended to reduce the risk and the justifications of these solutions, in accordance with *GPBPA* (WAPC & DFES, 2017).

##### 3.1.1. LOCATION

Table 6: Bushfire Protection Criteria Compliance

ELEMENT 1: LOCATION	
<p><b>Intent:</b> To ensure that strategic planning proposals, subdivision or development applications are located in areas with the least possible risk of bushfire to facilitate the protection of people, property and infrastructure.</p>	
Acceptable Solution	Compliance
<p><b>A1.1 - Development Location</b></p> <p>The strategic planning proposal, subdivision and development application is located in an area that is or will, on completion, be subject to either a moderate or low bushfire hazard level, or BAL-29 or below</p>	<p>Compliant: Yes</p> <ul style="list-style-type: none"> <li>The shortest separation distances to the closest classifiable vegetation plot off lot 261 is 22.1m at the existing development envelope and 25m at the proposed amended development envelope location. A maximum BAL-19 is possible at both locations. An improvement in BAL occurs at the proposed amended development envelope.</li> <li>Determined maximum bushfire attack level (bal) for both development envelope sites is BAL-19 however BAL-12.5 is 91% achievable at the existing development envelope and 98% achievable at the proposed envelope site.</li> </ul>

3.1.2. SITING AND DESIGN OF DEVELOPMENT

ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT	
<p><b>Intent:</b> To ensure that the siting and design of development minimises the level of bushfire impact</p>	
Acceptable Solution	Compliance
<p><b>A2.1 - Every habitable building is surrounded by, and every proposed lot can achieve, an APZ depicted on submitted plans, which meets the following requirements:</b></p> <p><u>Width:</u> Measured from any external wall or supporting post or column of the proposed building, and of sufficient size to ensure the potential radiant heat impact of a bushfire does not exceed 29kW/m<sup>2</sup> (BAL-29) in all circumstances.</p> <p><u>Location:</u> the APZ should be contained solely within the boundaries of the lot on which the building is situated, except in instances where the neighbouring lot or lots will be managed in a low-fuel state on an ongoing basis, in perpetuity (see explanatory notes).</p> <p><u>Management:</u> the APZ is managed in accordance with the requirements of 'Standards for Asset Protection Zones'. (see Schedule 1).</p>	<p>The amendment to the development envelope will have no influence on the management of the APZ and compliance</p> <p><u>Width:</u> The shortest separation distances to the closest classifiable vegetation plot is 22.1m in the existing development envelope and 25m in the proposed envelope. This sets a BAL-19 for both envelopes. the amended development area will have a slight improvement on the ability to separate habitable buildings from classified vegetation.</p> <p><u>Location:</u> The proposed amendment to the development envelope location will not influence the ability for the APZ to be managed solely on the subject land lot 261</p> <p><u>Management:</u> The amendment to the development envelope will have no influence on the management of the APZ and compliance.</p>

3.1.3. ACCESS

<b>ELEMENT 3: ACCESS</b>	
<b>Intent:</b> To ensure that the vehicular access serving a subdivision/development is available and safe during a bushfire event.	
Acceptable Solution	Compliance
<b>A3.1: Acceptable solution for Two Access Routes</b>	Compliant: Yes Two alternative access exist with the public road network as per Access map page 15. No new accesses have been proposed. <b>No influence on compliance</b>
<b>A3.2: Acceptable solution for Public Roads</b>	<b>No influence on compliance</b> Existing public road network to be used. No difference in management or standard caused by proposed amendment to development envelope
<b>A3.3: Acceptable solution for Cul-De-Sac (Including Dead End Road)</b>	None affecting this plan
<b>A3.4: Acceptable solution for Battle-Axe</b>	None affecting this plan
<b>A3.5: Acceptable solution for Private Driveway longer than 50 metres</b>	No significant difference in management or standard caused by proposed amendment to development envelope
<b>A3.6: Acceptable solution for Emergency Access Way</b>	None affecting this plan
<b>A3.7: Acceptable solution for Fire Service Access Routes (perimeter roads)</b>	None affecting this plan
<b>Acceptable solution for Firebreak Width – A3.8:</b>	<b>No influence on compliance</b> No difference in management or standard caused by proposed amendment to development envelope

3.1.4. WATER

<b>ELEMENT 4: WATER</b>	
Intent: To ensure that water is available to the subdivision, development or land use to enable people, property and infrastructure to be defended from bushfire	
Acceptable Solution	Compliance
<b><i>A4.1: Acceptable solution for Reticulated Areas</i></b>	Not Applicable
<b><i>A4.2: Acceptable solution for Non-Reticulated Areas</i></b>	Not Applicable
<b><i>A4.3: Acceptable solution for Individual Lots Within Non-Reticulated Areas</i></b>	<b>No influence on compliance</b> No significant difference in management or standard caused by proposed amendment to development envelope



## 4 IMPLEMENTATION AND ENFORCEMENT

The objective of implementation and enforcement is to ensure that once ‘Post-control’ mitigation measures have been undertaken, the BAL does not deteriorate (or BAL number increase).

*Table 7: Bushfire Risk Mitigation Measures and Activity Program.*

BUSHFIRE RISK MANAGEMENT ACTIVITY	BMP SECTION	DESCRIPTION	ACTIVITY FREQUENCY COMPLETION	RESPONSIBILITY
Ensure 70(a) application is submitted to LGA	1	If not already in place a Section 70A Notification will be placed on Title of the lot, stating: “AS3959-2009 Construction standards apply to this lot and a minimal fuel state within the boundaries of the lot must be maintained in perpetuity as outlined in section 4.1.2 of the Bushfire Management Plan and as per Guidelines for Planning in Bushfire Prone Areas 1.2 (WAPC & DEFS, 2017)”	As condition of approval at planning approval stage	Land Owner
APZ Management	4.1.1	Mechanical management of vegetation to APZ standard or minimal fuel state across the lot. Landscaping must not contribute a hazard or add to bushfire hazard. APZ standard will be maintained	Annually	Land Owner or occupier
Administer the <i>Bushfire Act 1954</i> and monitor land owner compliance	1	As per City works programme and protocol. Issue advice, warnings or fines where non-compliance of BMP or Bushfire Act has occurred	In line with any future build permit or work order	City of Wanneroo

## 5. CONCLUSION

The qualitative assessment comparing the proposed development envelopes with the bushfire threat with the Bushfire Protection Criteria has not identified a slight improvement in occupant safety and bushfire risk to future buildings.

This Bushfire Management Plan has demonstrated compliance of the proposed development envelope amendment with State Planning Policy 3.7 (WAPC, 2015a) and associated Guidelines for Planning in Bushfire Prone Areas (WAPC & DFES, 2017) in order to reduce the occurrence and potential threat of bushfire to life, property and the environment.

There has been a slight improvement in bushfire hazard or risk associated with the proposed development envelope amendment. Therefore compliance with SPP3.7 should not be in question if the amendment is approved.



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Robert Turner  
Bushfire Ready  
Date: 26/12/2017

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On signing above, this report is true and accurate to the best of my knowledge at the time of issue and compliant with SPP3.7 and its Guidelines.

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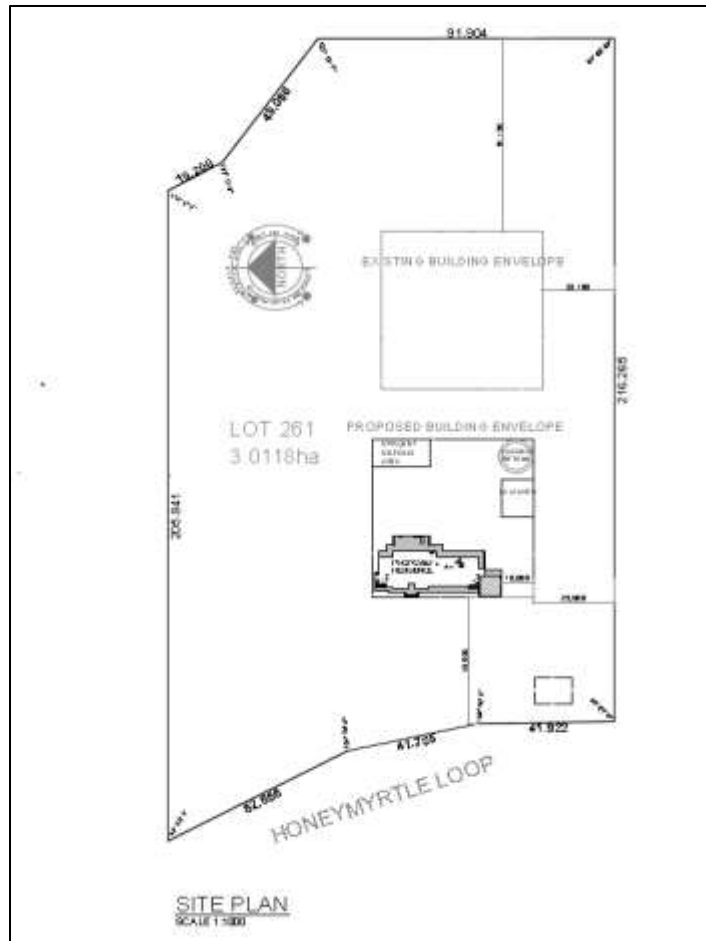
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## 7. APPENDICES

### 7.1 SITE PLAN

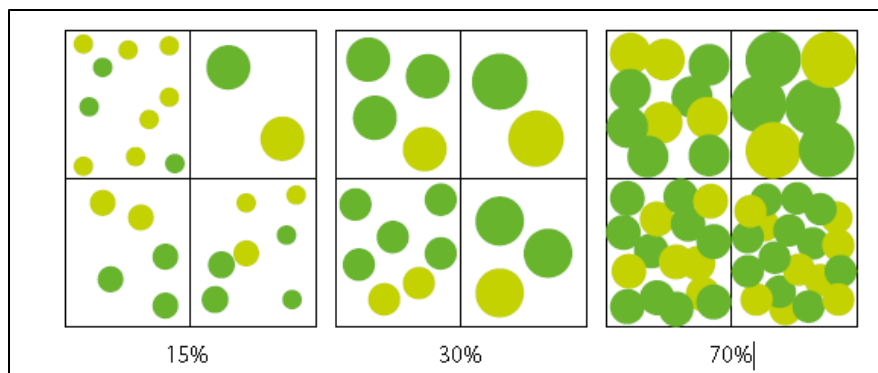
Site Plan		
Drawing / Plan Description: Site Plan		
Job Number: 128 C9	Revision: A	Date of Revision: 12/06/2014



<p>ACTIVA developments</p> <p>COPYRIGHT BY ACTIVADEVELOPMENTS</p> <p>OFFICE: 226 BUSHFIRE LOOP BERRIGEE NSW 2111</p> <p>POSTAL: PO BOX 1350 SUCCESSION WA2054</p> <p>TEL: 0194288601 FAX: 0194288075</p>	Clients: <b>Geoff &amp; Rebecca Holtmeulen</b> Address: <b>LOT 261          HONEYMYRTLE LOOP          FORESTDALE 6112</b>	AMENDMENTS:  	Drawing Title: <b>PLANS - DOUBLE - SITE PLAN</b>	
	The builder shall check and verify all dimensions and verify all errors and omissions to the Architect. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Architect for construction.	Scale: as noted Date: -	Status: CONSTRUCTION DRAWING Checked By: -	Project No:   Wind Zone: -
	Drawing No.: 1 OF 4	Plot Date: 12/12/2017		

## 7.2 ASSET PROTECTION ZONE STANDARD

- 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.
- 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.



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