

Bushfire management plan/Statement addressing the Bushfire Protection Criteria coversheet

Site address: Lot 9043 Yanchep Beach Road, Yanchep

Site visit: Yes ☒ No ☐

Date of site visit (if applicable): Day 29 Month March Year 2021

Report author or reviewer: Zac Cockerill

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: BPAD37803 Accreditation expiry: Month August Year 2021

Bushfire management plan version number: Rev 1

Bushfire management plan date: Day 25 Month June Year 2021

Client/business name: DevelopmentWA

	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"/>

	Yes	No
Is the proposal any of the following (see SPP 3.7 for definitions)?		
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.)?

N/A

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 25/06/2021

DevelopmentWA
Bushfire Management Plan (Subdivision Application)

Lot 9043 Yanchep Beach Road, Yanchep

25 June 2021

60628 136,666 (Rev 1)

JBS&G Australia Pty Ltd T/A Strategen-JBS&G

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Appendix B	APZ standards (Schedule 1 of Guidelines)
Appendix C	Vehicular access technical standards of the Guidelines
Appendix D	Water technical standards of the Guidelines
Appendix E	City of Wanneroo Firebreak Notice (2020)

1. Proposal details

1.1 Background

In 2016, DevelopmentWA received conditional subdivision approval (WAPC reference: 152955) to develop Lot 9043 Yanchep Beach Road, Yanchep (hereon referred to as the project area) for residential purposes. DevelopmentWA now intends to lodge a new subdivision application over the project area in accordance with Figure 1. The project area is located in the City of Wanneroo, 47 km northwest of the Perth CBD and forms part of Lots 1 and 2 Yanchep Beach Road, Local Structure Plan 76.

The subdivision plan (Figure 1) identifies:

- 309 proposed single dwelling residential lots
- one proposed grouped dwelling lot
- one proposed commercial lot
- four proposed Public Open Space (POS) lots
- proposed road widening along Yanchep Beach Road (north) and Butterleaf Avenue (west).

1.2 Site description

The project area comprises approximately 27.5 ha of predominantly cleared, vacant land within Lot 9043. The project area is surrounded by (see Figure 2):

- Yanchep Beach Road and urban residential development to the north
- Bush Forever Site 289 (Ningana Bushland) to the south and southwest
- predominantly cleared, vacant land to the east which is zoned for urban development
- existing Jindowie Land Estate to the west.

The majority of the project area is designated as bushfire prone on the *Map of Bush Fire Prone Areas* (DFES 2019; see Plate 1).

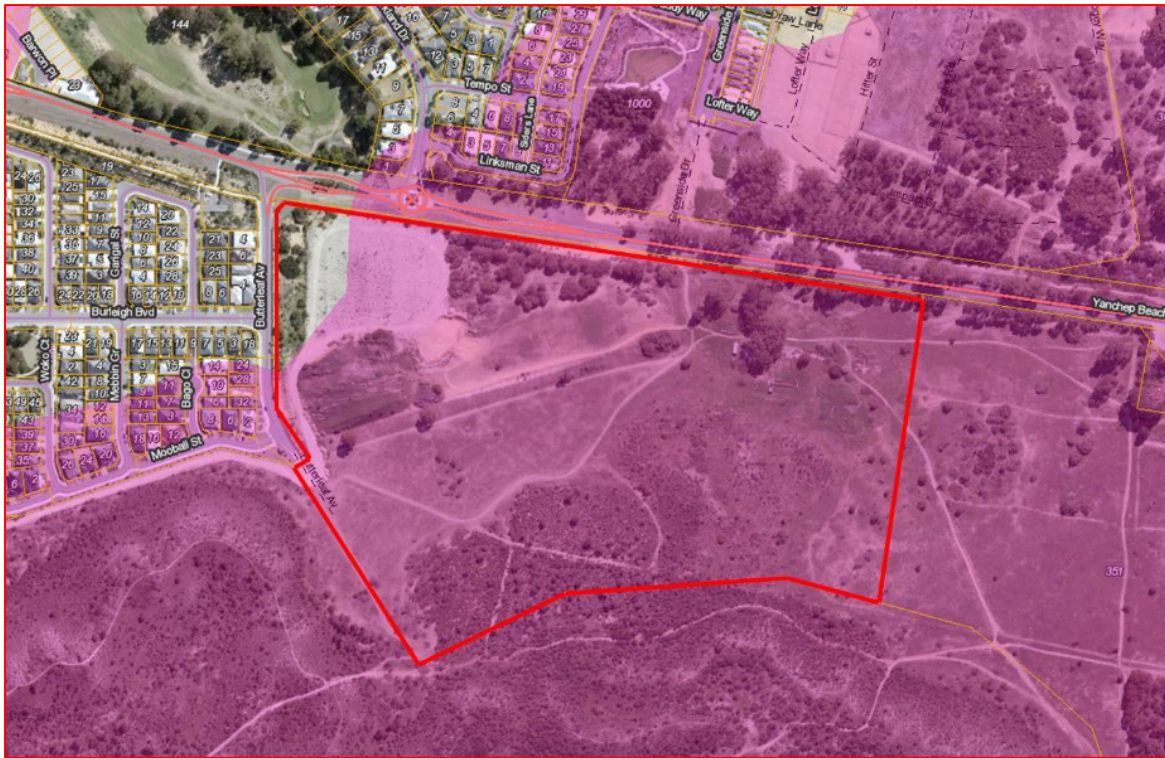


Plate 1: Map of Bush Fire Prone Areas (DFES 2019)

1.3 Purpose

This BMP has been prepared in accordance with the requirements under Policy Measure 6.4 of *State Planning Policy 3.7 Planning in Bushfire-Prone Areas* (SPP 3.7; WAPC 2015) and *Guidelines for Planning in Bushfire-Prone Areas* (the Guidelines; WAPC 2017).

1.4 Other plans/reports

Other reports that have been prepared for the project area include:

- *Environmental Assessment and Management Strategies; Lot 103 Yanchep Beach Road, Yanchep* (Coffey Environments 2009)
- *Lots 1 & 2 Yanchep Beach Road, Local Structure Plan 76* (Chappell Lambert Everett 2010).



LEGEND		
	Application Area	
	Existing Boundary	
	Existing Contours / Survey	
	Existing Water Infrastructure	
	Existing Sewer Infrastructure	
	Proposed Boundary	
Lot Range - Laneway Lots		
Lot Range - 10.5m		
Lot Range - 12.5m		
Lot Range - 15m		
Lot Range - >15m		
Lot Range - Miscellaneous		
Lot Range - Squat Lots		
Sub Total		
Stage 1		
Total		

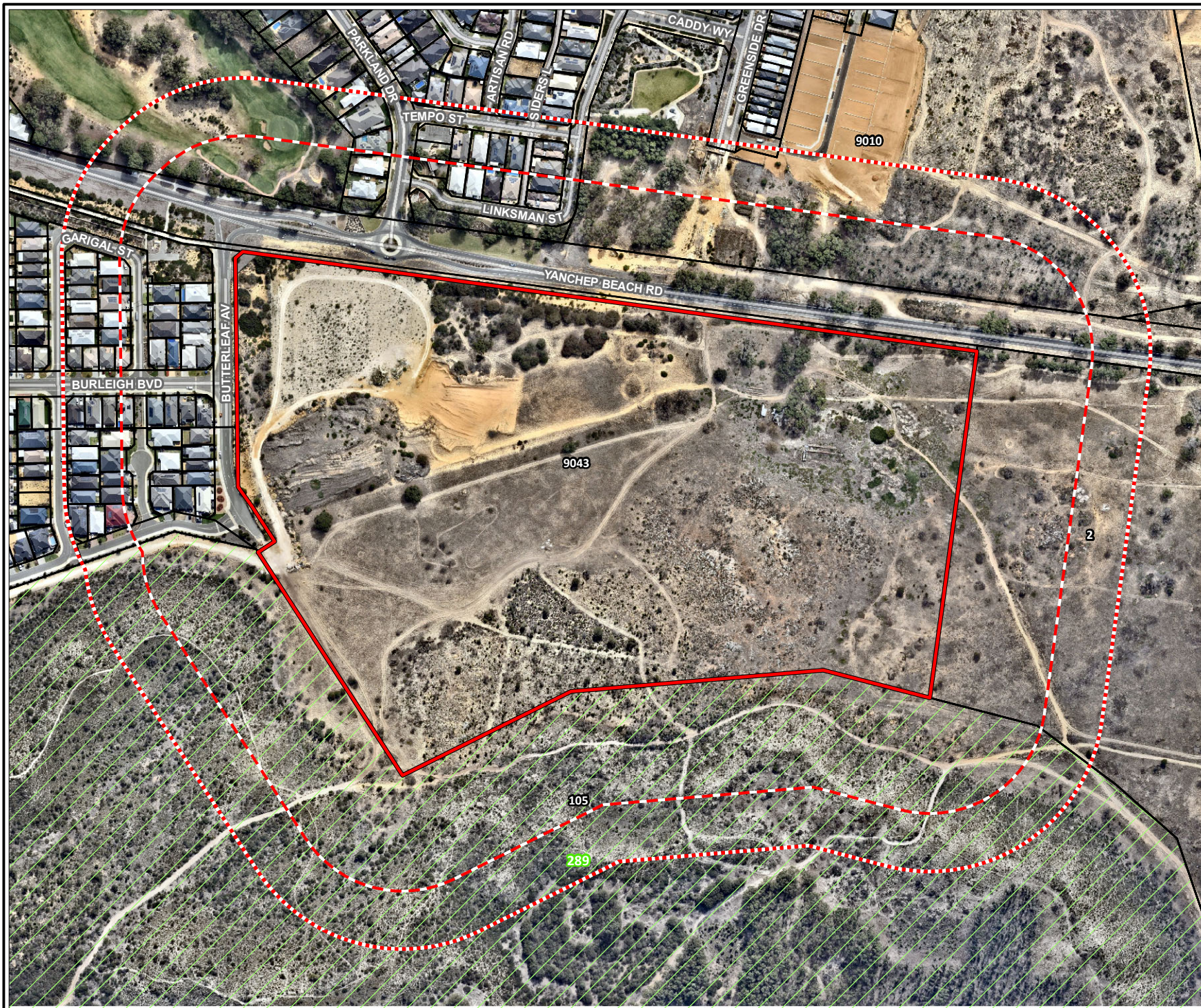
LOT SUMMARY		
Subject Site		
Existing Lot 9043		
Proposed Residential		
Single Dwelling Lots (309)		
Lot Range		
Lot Average		
Grouped Dwelling Lots (1)		
Commercial (1)		
Public Open Space (4)		
Road Widening (1)		

Amended Subdivision Plan (WAPC Ref: 152955)

Lot 9043 Yanchep Beach Road, Yanchep

Date: 15 Jun 2021 Scale: 1:2500 @ A3 1:1250 @ A1 File: 21-259 SU01A Staff: JP GW Checked: JP





Legend

- Project area
- 100m assessment area
- 150m assessment area
- Cadastral boundary
- Bush Forever site (DOP)
- Roads (MRWA)



Job No: 60628

Client: Development WA

Version: A

Date 24/06/2021

Drawn By: jcrute

Checked By: CT

Scale 1:4,500 at A4



0 50 100
metres

**351 Yanchep Beach Road,
Yanchep, WA**

SITE OVERVIEW

FIGURE 2

2. Environmental considerations

2.1 Native vegetation - modification and clearing

An Environmental Assessment was undertaken by ATA Environmental in October 2005 (Coffey Environments 2009), which included the project area. ATA Environmental identified three vegetation types within the project area ranging from Completely Degraded to Degraded condition (in 2005), including:

- *Acacia rostellifera* Closed Heath
- *Banksia attenuata* Low Open Forest
- *Dryandra sessilis* (now *Banksia sessilis*) Heath to Closed Heath (Ds), - *Dryandra sessilis* (now *Banksia sessilis*) and *Calothamnus quadrifidus* Heath to Closed Heath.

The extent of native vegetation within the site is limited as a result of historic clearing and disturbances such as rural land uses and bushfire.

Limited areas of intact vegetation may be proposed for retention within POS, however, will meet one of the vegetation exclusions under Clause 2.2.3.2 of AS 3959.

A search of publicly available environmental data, as well as review of information from the Environmental Assessment Report (Coffey Environments 2009) relating to the project area has been undertaken and is summarised in Table 1. Table 1 provides a summary of a search of publicly available environmental data as well as information documented within the Environmental Assessment prepared by Coffey Environments (2009).

Clearing of native vegetation will be exempt from requiring a native vegetation clearing permit under Part V of the *Environmental Protection Act 1986* (EP Act) through application of an exemption under Schedule 6 of the EP Act (via the subdivision approval).

The project was referred under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) in 2013. Department of the Environment (now Department of Agriculture Water and the Environment) determined that the project was not a controlled action in 2016. The EPBC Act referral made a commitment to retain 0.53 ha of habitat for black cockatoos in the proposed southern POS area.

Table 1: Summary of environmental values

Environmental value	Not mapped as occurring within or adjacent to the project area	Mapped as occurring within or adjacent to the project area		Description
		Within	Adjacent	
Environmentally Sensitive Area		✓		An Environmentally Sensitive Area is mapped within the project area, associated with the buffer of a Threatened Ecological Community (TEC). There are no TECs known to occur within the project area.
Swan Bioplan Regionally Significant Natural Area	✓			N/A
Ecological linkages	✓			No mapped ecological linkages fall within the project area. The closest mapped ecological linkage is located approximately 850 m east of the project area.

Environmental value	Not mapped as occurring within or adjacent to the project area	Mapped as occurring within or adjacent to the project area		Description
		Within	Adjacent	
Wetlands	✓			N/A.
Waterways	✓			N/A
Threatened Ecological Communities listed under the EPBC Act	✓	Possible	Possible	There are no TECs known to occur within the project area. It is noted that <i>Banksia attenuata</i> has been previously recorded within the project area which may form part of the EPBC Act listed "Banksia Woodlands of the Swan Coastal Plain Threatened Ecological Community", however the presence/ absence of this TEC has not been confirmed.
Threatened and priority flora	✓			N/A.
Fauna habitat listed under the EPBC Act	✓			N/A
Threatened and priority fauna	✓			No Threatened or Priority Flora or species of local significance were recorded during flora and vegetation surveys undertaken in 1991, 2001 or 2005 (Coffey Environments 2009).
Bush Forever Site			✓	Bush Forever Site 289 is located immediately south of the project area.
DBCA managed lands and waters (includes legislated lands and waters and lands of interest)	✓			N/A
Conservation covenants	✓			There are no known conservation covenants applicable to the project area.

2.2 Revegetation / Landscape Plans

No revegetation is proposed as part of the proposal.

The proposed landscaping of POS and road reserves will achieve one or a combination of the following vegetation exclusions under Clause 2.2.3.2 of AS 3959:

- areas of vegetation less than 0.25 ha in area and not within 20 m of proposed habitable development or each other, or of other areas of vegetation being classified vegetation in accordance with Clause 2.2.3.2 (c)
- strips of vegetation less than 20 m in width and not within 20 m of proposed habitable development or each other, or other areas of vegetation being classified in accordance with Clause 2.2.3.2 (d)
- non-vegetated areas permanently cleared of vegetation such as roads, footpaths and buildings in accordance with Clause 2.2.3.2 (e)
- low-threat and managed gardens in accordance with Clause 2.2.3.2 (f) and Schedule 1 of the Guidelines (refer to Appendix B).

A landscape plan is currently in preparation, which will ensure that vegetation retained or planted within the site achieves the above vegetation exclusions.

3. Bushfire assessment results

3.1 Assessment inputs

3.1.1 Vegetation classification

Strategen-JBS&G assessed classified vegetation and exclusions within the 150 m assessment area through on-ground verification on 29 March 2021 in accordance with *AS 3959-2018 Construction of Buildings in Bushfire-Prone Areas* (AS 3959; SA 2018) and the *Visual Guide for Bushfire Risk Assessment in Western Australia* (DoP 2016). Georeferenced site photos and a description of the vegetation classifications and exclusions are contained in Appendix A and depicted in Figure 3.

3.1.2 Effective slope

Strategen-JBS&G assessed effective slope under classified vegetation within the 150 m assessment area through on-ground verification on 29 March 2021 in accordance with AS 3959. Results were cross-referenced with DPIRD 2m contour data and are depicted in Figure 3.

Elevation ranges from 18 mAHD in the north-western and north-eastern portions of the project area to 34 mAHD near the southern boundary (Figure 3).

Vegetation within 150 m of the project area is predominantly situated on land that is flat or upslope of the project area with the exception of Class B woodland to the north (downslope 0–5 degrees), Class D scrub to the northwest (downslope 0–5 degrees), Class G grassland to the east (downslope 0–5 degrees) and Class D scrub and Class A forest to the south (downslope 5–10 degrees).

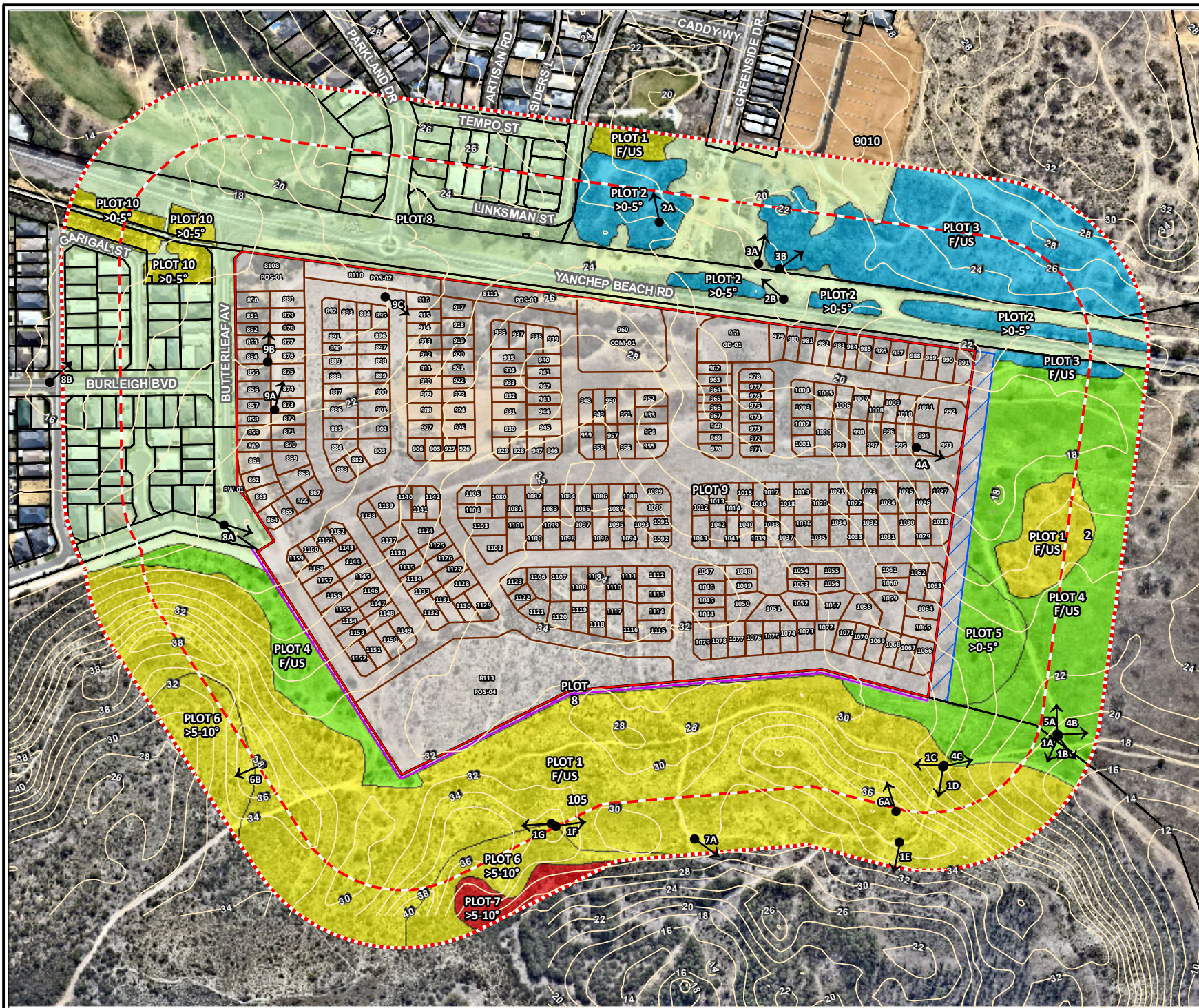
3.1.3 Summary of inputs

Figure 3 illustrates the anticipated vegetation classifications and exclusions following completion of subdivision works and implementation of low threat landscaping throughout the project area and adjacent 150 m. The post-development vegetation classifications/exclusions and effective slope are summarised in Table 2.

Table 2: Summary of post-development vegetation classifications, exclusions and effective slope

Vegetation plot	Vegetation classification	Effective slope	Comments
1	Class D Scrub	Flat/upslope (0°)	Vegetation with a continuous horizontal and vertical structure, greater than 2 m high at maturity
2	Class B Woodland	Downslope >0–5°	Trees 2-30 m at maturity, dominated by trees with a grassy understorey (lacks shrubby middle layer and deep surface litter)
3	Class B Woodland	Flat/upslope (0°)	Trees 2-30 m at maturity, dominated by trees with a grassy understorey (lacks shrubby middle layer and deep surface litter)
4	Class G Grassland	Flat/upslope (0°)	Grassland at maturity, greater than 100 mm in height
5	Class G Grassland	Downslope >0–5°	Grassland at maturity, greater than 100 mm in height
6	Class D Scrub	Downslope >5–10°	Vegetation with a continuous horizontal and vertical structure, greater than 2 m high at maturity
7	Class A Forest	Downslope >5–10°	Trees 10-30 m high at maturity, dominated by Eucalypts, multi-tiered structure comprising tall canopy layer, shrubby middle layer and grass/herb/sedge understorey
8	Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])	N/A	Low threat cultivated gardens and maintained lawns within surrounding

Vegetation plot	Vegetation classification	Effective slope	Comments
			properties and non-vegetated areas including roads, footpaths, driveways and building footprints
9	Excluded under Clause 2.2.3.2 (c), (d), (e) and (f)	N/A	Areas to be modified to a low threat state through creation of residential lots, public roads, managed public open space, road verges and retained POS vegetation excludable under Clauses 2.2.3.2 (c) and (d) of AS3959.
10	Class D Scrub	Downslope >0–5°	Vegetation with a continuous horizontal and vertical structure, greater than 2 m high at maturity



Legend

- Project area
- 100m assessment area
- 150m assessment area
- Cadastral boundary
- Proposed 17m wide road reserve
- 3m wide firebreak
- Vegetation classification
- Class A Forest
- Class B Woodland
- Class D Scrub
- Class G Grassland
- Clause 2.2.3.2 (e) & (f)
- Area to be modified to non-vegetated and low threat state
- Photo point directions
- Proposed lots
- Topographic contours (mAHd)
- Roads (MRWA)



Job No: 60628

Client: Development WA

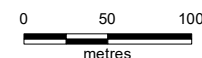
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Checked By: CT

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351 Yanchep Beach Road,
Yanchep, WA

POST-DEVELOPMENT
VEGETATION CLASSIFICATION
AND EFFECTIVE SLOPE

FIGURE 3

3.2 Assessment outputs

3.2.1 Bushfire Attack Level (BAL) contour assessment

Strategen-JBS&G has undertaken a BAL contour assessment in accordance with Method 1 of AS 3959 for the project area (Figure 4). The Method 1 procedure incorporates the following factors:

- state-adopted FDI 80 rating
- vegetation classification
- effective slope
- distance maintained between proposed development areas and the classified vegetation.

The BAL rating gives an indication of the level of bushfire attack (i.e. the radiant heat flux) that may be received by proposed development and subsequently informs the standard of building construction and/or setbacks required for proposed habitable development to potentially withstand such impacts and/or deliver compliance with bushfire protection criteria by achieving BAL-29 or lower.

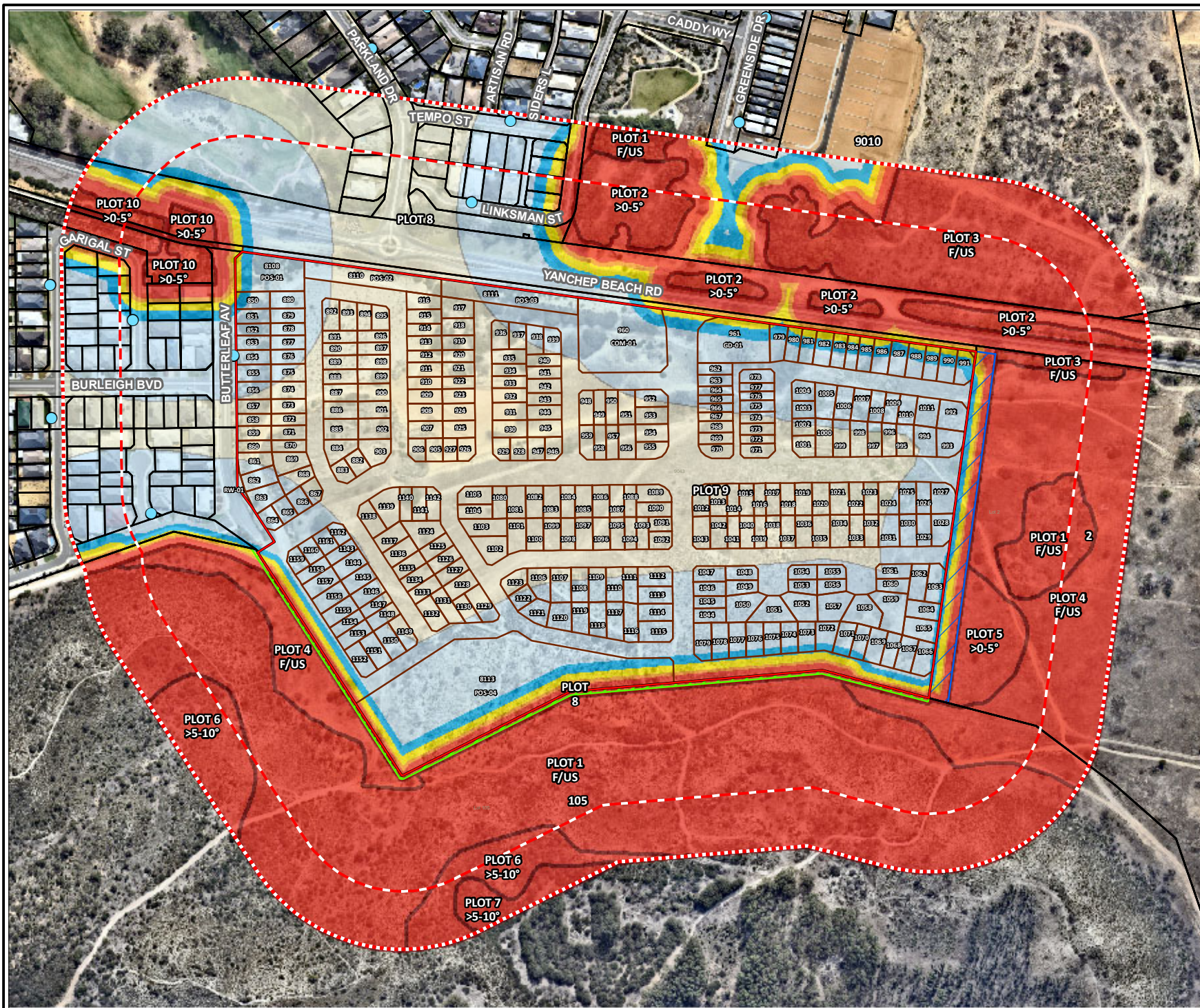
The BAL contours are based on:

- the vegetation classifications and effective slope observed at the time of inspection as well as consideration of the proposed on-site clearing extent, resultant vegetation exclusions and separation distances achieved in line with the plan of subdivision
- construction of a 17 m wide public road and associated non-vegetated/low-threat managed verge immediately east of the project area in accordance with Clauses 2.2.3.2 (e) and (f) of AS3959, consistent with Condition 12 of the previous subdivision approval
- continuation of existing management of the Yanchep Beach Road reserve including slashing of weeds and grasses to a height no greater than 100 mm (City of Wanneroo responsibility)
- additional landscaping within the Yanchep Beach Road reserve consistent with Clause 2.2.3.2 (c), (d), (e) and/or (f) of AS3959
- implementation and maintenance of a 3 m wide firebreak within the boundary of Bush Forever Site 289 (relevant land manager responsibility).

Results of the BAL contour assessment are detailed in Table 3 and illustrated in Figure 4. The highest BAL applicable to the external boundary of the proposed residential lots is BAL-29.

Table 3: BAL contour assessment results

Method 1 BAL determination				
Plot	Vegetation classification	Effective slope	BAL contour width	Highest BAL (to lot boundary)
1	Class D Scrub	Flat/upslope (0°)	19–<27 m	BAL-19
2	Class B Woodland	Downslope >0–5°	17–<25 m	BAL-29
3	Class B Woodland	Flat/upslope (0°)	14–<20 m	BAL-29
4	Class G Grassland	Flat/upslope (0°)	17–<50 m	BAL-12.5
5	Class G Grassland	Downslope >0–5°	20–<50 m	BAL-19
6	Class D Scrub	Downslope >5–10°	35–<100 m	BAL-12.5
7	Class A Forest	Downslope >5–10°	>100 m	BAL-Low
8	Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])	N/A	N/A	N/A
9	Excluded under Clause 2.2.3.2 (c), (d), (e) and (f)	N/A	N/A	N/A
10	Class D Scrub	Downslope >0–5°	15–<22 m	BAL-29



Legend

- Project area
- 100m assessment area
- 150m assessment area
- Cadastral boundary
- Proposed 17m wide road reserve
- 3m wide firebreak
- Classified vegetation
- BAL contours
 - BAL FZ
 - BAL 40
 - BAL 29
 - BAL 19
 - BAL 12.5
 - BAL Low
- Proposed lots
- Roads (MRWA)
- Water hydrant



Job No: 60628

Client: Development WA

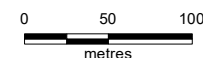
Version: A

Date 24/06/2021

Drawn By: jcrute

Checked By: CT

Scale 1:4,500 at A4



**351 Yanchep Beach Road,
Yanchep, WA**

BAL CONTOUR MAP

FIGURE 4

4. Identification of bushfire hazard issues

4.1 Bushfire context

The project area is an extension of the established areas within Jindowie Estate. As such, there is minimal bushfire risk to the project area from the west/northwest in association with these urban development areas. Furthermore, grassland bushfire risk to the east of the proposed subdivision is expected to be minimal and mitigated by the proposed 17 m wide road at this interface.

The greatest bushfire threat to the proposed development is associated with vegetation within Bush Forever Site 289 to the south/southeast/southwest of the project area. There is the potential for considerable fire run length under southerly, south-easterly and south-westerly prevailing wind conditions. Bush Forever Site 289 comprises a variety of vegetation structures including Tuart Open Woodland to Woodland, *Banksia attenuata* and *B. menziesii* Low Open Woodland, Open to Closed Low Heaths dominated by *Banksia sessilis* var. *cygnorum* and/ or *Melaleuca systema*, *Xanthorrhoea preissii* Shrubland, Acacia Closed Tall Scrub to Closed Heath, Open to Closed Low Heaths to Shrubland and areas of *Spinifex* sp. Grassland (GoWA 2000).

Separation at this vegetation interface is provided by the proposed 17 m wide road reserve at the south-eastern project area boundary, as well as the proposed southern POS area that will be established as low threat vegetation, the additional 14 m wide road reserve, and a future 3m-wide firebreak within Bush Forever Site 289, all of which will form a permanent and substantial buffer to the proposed development.

4.2 Bushfire hazard issues

Fragmented patches of Class B Woodland vegetation are located immediately north of Yanchep Beach Road. The proposed low threat managed road verge (southern side of Yanchep Beach Road) in addition to Yanchep Beach Road will provide sufficient separation to this hazard to deliver compliant BAL-29 or lower development.

Fuel loads to the east of the project area comprise predominantly short grasses associated with agricultural land uses. Separation to these hazards will be provided through implementation of a 17 m wide external public road reserve, which will provide substantial separation to the development, resulting in a maximum rating of BAL-19 along this development interface.

Class D Scrub and Class G Grassland to the south of the project area within Bush Forever Site 289 results in a maximum rating of BAL-19 for the southern-most lots. As outlined above, separation at this vegetation interface is provided by the proposed 17 m wide road reserve at the south-eastern project area boundary, as well as the proposed southern POS area and additional 14 m wide road reserve, which forms a permanent and substantial buffer to the proposed development.

Revegetated and landscaped areas to the northwest of the project area (adjacent to Yanchep Beach Road and Carigal Street) pose a bushfire risk to lots abutting Butterleaf Avenue. However, the presence of Butterleaf Avenue provides non-vegetated separation of approximately 19 m to the north-western-most lots resulting in a maximum BAL rating of BAL-29 at this interface.

The BAL contours identified in Figure 4 demonstrate that all proposed residential lots are located within areas of BAL-29 or lower. On this basis, all areas of habitable development can achieve minimum separation distances through provision of existing and proposed road reserve separation as well as POS that will constitute a vegetation exclusion under Clause 2.2.3.2 of AS3959 at the interface of proposed lots and post-development classified vegetation.

On completion of development within the project area, there will be a reduced bushfire risk to future assets as a result of vegetation clearing that will be undertaken to facilitate development. Vegetation clearing throughout development staging will play an important role in managing the bushfire risk posed by on-site temporary vegetation during roll out of individual development stages.

Current vehicular access design for the proposed subdivision is compliant subject to the construction of a north-south public road immediately east of the project area, consistent with Condition 12 of the previous subdivision approval. Furthermore, since development of the proposed subdivision is likely to be staged, vehicular access arrangements will also need to ensure that all occupiers and visitors are provided with at least two vehicular access routes at all times (from Stage 1 onwards) through provision of public roads in advance of stages and/or temporary compliant cul-de-sacs/Emergency access Ways (EAWs). Potential staging matters are discussed as key management measures in Section 5.2).

The bushfire risks to proposed development posed by post development hazards can be managed through standard application of acceptable solutions under the Guidelines, including provision for proposed public roads and low threat POS that will form a permanent and substantial buffer to the proposed development, bushfire construction standards where relevant, provision of adequate reticulated emergency water supply and vehicular access, as well as through a direct bushfire suppression response if required. The Volunteer Fire and Rescue Service stationed at Yanchep is expected to provide emergency suppression response should a bushfire threaten development within the project area. Bushfire mitigation strategies applicable to the proposed development are addressed in Section 5 of this BMP.

On this basis, Strategen-JBS&G considers the bushfire hazards within and adjacent to project area and the associated bushfire risks are readily manageable through standard management responses outlined in the Guidelines and AS 3959. These responses have been factored in to 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 bushfire protection criteria

5.1 Compliance table

An acceptable solutions assessment against the bushfire protection criteria is provided in Table 4.

Table 4: Compliance with the bushfire protection criteria of the Guidelines

Bushfire protection criteria	Method of compliance Acceptable solutions	Proposed bushfire management strategies
Element 1: Location	A1.1 Development location	The BAL contour assessment (see Figure 4 and Table 3) indicates that all proposed lots can achieve BAL-29 or lower.
Element 2: Siting and design	A2.1 Asset Protection Zone	The BAL contour assessment identifies all habitable development as having the capacity to achieve sufficient separation between residential lot boundaries and the surrounding classified vegetation to achieve a BAL-29 or lower rating (see Figure 4), without the need for any specific APZ provisions. With regards to any areas to be modified to low threat vegetation in accordance with Clause 2.2.3.2 (f), these areas are to be established and maintained as per Guideline APZ standards (see Appendix B).
Element 3: Vehicular access	A3.1 Two access routes	A combination of existing perimeter roads and the proposed internal vehicle access network will provide all occupants with the option of travelling to more than two different destinations (see Figure 4): <ul style="list-style-type: none"> connection to Butterleaf Avenue providing the option of travelling north to Yanchep Beach Road and subsequently east or west two additional connections to Yanchep Beach Road (including the proposed external 17 m wide road reserve to the east) providing the option of travelling east or west. Compliant vehicular access relies on construction of a north-south public road immediately east of the project area, consistent with Condition 12 of the previous subdivision approval.
	A3.2 Public road	All public roads will be constructed to the relevant technical requirements of the Guidelines (see Appendix C).
	A3.3 Cul-de-sac (including a dead-end-road)	N/A – no permanent cul-de-sacs are proposed as part of the subdivision and the project area is not serviced by an existing cul-de-sac. Any temporary cul-de-sacs required as a result of staged development will be less than 200 m in length, will include minimum 17.5 m diameter turn-around heads and will be constructed to the relevant technical requirements of the Guidelines (see Appendix C). The two small turnaround nodes proposed in the southeast of the site do not represent cul-de-sacs as they are not serviced by a one-way-in/one-way-out access leg that is typical of a cul-de-sac dead end.
	A3.4 Battle-axe	N/A – no battle-axes are proposed as part of the subdivision and the project area is not serviced by an existing battle-axe.
	A3.5 Private driveway longer than 50 m	N/A – the proposed lots are of size where all future habitable development will be located within 50 m of a public road.
	A3.6 Emergency access way	No permanent emergency access ways (EAW) are proposed; however if development and vehicular access construction is to be staged, any proposed temporary EAW is to be constructed to the relevant technical requirements of the Guidelines (see Appendix C).
	A3.7 Fire service access routes (perimeter roads)	N/A – the proposed subdivision design does not require fire service access routes (FSARs) to achieve access within and around the perimeter of the project area. A public road and POS is provided at the Bush Forever interface. The POS will include a 3m-wide trafficable firebreak at the Bush Forever interface.
	A3.8 Firebreak width	Given that all lots will be cleared and developed, lot boundary firebreaks will not be required for any of the proposed residential lots.

Bushfire protection criteria	Method of compliance	Proposed bushfire management strategies
	Acceptable solutions	
		Given that the southern-most POS is approximately 1.5 ha in area and directly interfaces with Bush Forever Site 289, a lot boundary firebreak that is 3 m wide will be required in accordance with the City of Wanneroo's annual firebreak notice as amended (see Appendix E). It is anticipated that a 3m-wide firebreak will also be implemented within the boundary of Bush Forever Site 289.
Element 4: Water	A4.1 Reticulated areas	The proposed development will be connected to reticulated water supply via extension from surrounding development in accordance with Water Corporations Design Standard 63 requirements (refer to Appendix D). Existing water hydrants are located at 200 m intervals along the public road network of the residential developments immediately west and north of the project area.
	A4.2 Non-reticulated areas	N/A – the proposed subdivision is located within an existing 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 subdivision is located within an existing reticulated area.

5.2 Additional management strategies

Strategen-JBS&G makes the following additional bushfire management recommendations to inform ongoing planning stages of the development and increase the level of bushfire risk mitigation across the site.

5.2.1 On-site staging buffers

If development (and therefore clearing) is to occur on a staged basis, clearing in advance will need to occur to ensure building construction is not inhibited by a temporary vegetation extent located within adjacent development stages yet to be cleared. This can be achieved by ensuring that each approved stage subject to construction is surrounded by an on-site cleared or low threat buffer to development (not including vegetation proposed to be retained). The extent of the buffer should be determined in consultation with an accredited bushfire practitioner.

5.2.2 Staging of access

If development (and therefore construction of vehicular access) is to occur on a staged basis, vehicular access arrangements will need to ensure that all occupiers and visitors are provided with at least two access routes at all stages. This can be achieved via construction of public access in advance of stages or through provision of temporary compliant cul-de-sacs/EAWs until two formal access roads are available.

5.2.3 Fuel management within cleared vacant lots

Cleared vacant lots are to be managed on a regular and ongoing basis by the developer until sale of lots after which time landowners will be responsible for ongoing management. Maintenance is to be in accordance with Clause 2.2.3.2 (f) of AS 3959 and Schedule 1 of the Guidelines (refer to Appendix B) and will involve slashing/mowing of grassland and weeds to a height of less than 100 mm.

Furthermore, the City of Wanneroo firebreak notice requires all lots <4 000m² to have grasses and inflammable materials, with the exception of living trees, maintained to a height of no more than 50 mm.

5.2.4 Road verge fuel management

Existing and proposed road verges that have been excluded as low threat are to be managed to ensure the understorey and surface fuels remain in a low threat, minimal fuel condition in accordance with Clause 2.2.3.2 (f) of AS 3959. Ongoing road verge management is the responsibility of the City of Wanneroo.

5.2.5 Notification on title

Notification is to be placed on the Title of proposed lots subject to BAL-12.5 or higher (either through condition of subdivision or other head of power) to ensure landowners/proponents and prospective purchasers are aware that their lot is subject to an approved BMP and BAL assessment.

5.2.6 Building construction standards

Future Class 1, 2, 3 and associated 10a buildings in areas subject to BAL-12.5 or higher are required to comply with the bushfire specific building construction requirements of AS 3959.

There is no statutory requirement for proposed commercial buildings to meet the construction requirements of AS 3959. However, it is recommended that where practical, non-residential habitable buildings also adopt bushfire construction measures relevant to the assessed BAL.

5.2.7 BMP compliance and/or individual lot BAL assessment at future stages

A BMP compliance report will be prepared prior to issue of title to validate and confirm that relevant management measures of this BMP have been implemented appropriately to achieve the intended bushfire management outcomes and compliance with bushfire protection criteria.

5.2.8 Vulnerable land uses

Vulnerable land uses are those where persons may be less able to respond in a bushfire emergency. The Guidelines specify that vulnerable land uses included:

- land uses designed to accommodate groups of people with reduced physical or mental ability (such as the elderly, children, sick or injured) in dedicated facilities (e.g. nursing homes, child care centres and hospitals)
- facilities that, due to building or functional design, offer limited access or the number of people accommodated may present evacuation challenges (e.g. prisons and detention centres)
- short stay accommodation uses that involve people who are unaware of their surroundings and may require assistance or direction in the event of a bushfire (e.g. bed and breakfasts, caravan parks, camping grounds, holiday houses and accommodations, home businesses, tourist development and workers' accommodation).

In the event that future commercial development within the project area is considered to constitute a vulnerable land use, such development is subject to the requirements of Policy Measure 6.6.1 of SPP 3.7 which requires vulnerable land uses located in areas of BAL-12.5 to BAL-29 to be accompanied by a Bushfire Emergency Evacuation Plan (BEEP) at development application stage.

5.2.9 High risk land uses

High risk land uses may include, but are not limited to service stations, landfill sites, bulk storage of hazardous materials, fuel depots and certain heavy industries as well as military bases, power generating land uses, saw-mills, highways and railways, among other uses meeting the definition.

Proposed industrial development has the potential to establish high risk land uses throughout the project area. Where high risk land uses cannot be avoided, Policy Measure 6.6.1 of SPP 3.7 requires high risk land uses located in areas of BAL-12.5 to BAL-29 to be accompanied by a Bushfire Risk Management Plan (BRMP) at development application stage.

5.2.10 Landscaping plan

The BAL contour assessment is reliant on all landscaping being implemented and maintained as a vegetation exclusion consistent with Clause 2.2.3.2 (c), (d) or (f) of AS3959. Responsibility for establishment and maintenance of low-threat landscaping is discussed in Section 6. A landscaping plan will need to be prepared that validates the low threat expectation throughout on-site POS.

5.2.11 Compliance with annual firebreak notice

The developer/land manager and prospective land purchasers are to comply with the current City of Wanneroo annual firebreak notice as amended (refer to Appendix E).

As outlined above, the City of Wanneroo Firebreak Notice requires all lots <4 000m² to have grasses and inflammable materials, with the exception of living trees, maintained to a height of no more than 50 mm.

The City of Wanneroo Firebreak Notice requires all lots to have a 3 m wide firebreak installed inside the lot boundary (refer to Appendix E).

6. Responsibilities for implementation and management of the bushfire measures

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

Table 5: Responsibilities for implementation and management of the bushfire measures

Implementation/management table	
Developer – prior to issue of titles	
No.	Implementation action
1	Provide for construction of the public roads and reticulated water supply to the standards stated in this BMP, including the external public road immediately east of the project area consistent with Condition 12 of the previous subdivision approval.
2	Provide for construction of any temporary cul-de-sacs/EAWs to the standards stated in this BMP.
3	Prepare a POS landscape plan that demonstrates POS will achieve vegetation exclusion under Clause 2.2.3.2 of AS3959 in accordance with provisions of this BMP.
4	Establish POS and road verges to a standard consistent with a vegetation exclusion under Clause 2.2.3.2 of AS3959, in accordance with provisions of this BMP.
5	Comply with the relevant local government annual firebreak notice issued under s33 of the <i>Bush Fires Act 1954</i> , including establishment and maintenance of firebreaks.
6	If lot creation is staged, establish any low threat staging buffers to the standards stated in this BMP.
7	Undertake BMP compliance assessment.
Bush Forever Site 289 Land Manger – prior to issue of titles	
No.	Implementation action
1	Implement a 3m-wide firebreak within the boundary of Bush Forever Site 289, immediately south of the project area.
Developer – until sale/transfer of lots	
No.	Implementation action
1	If lot creation is staged, maintain on-site staging buffers to the standards stated in this BMP.
2	Maintain all residential lots in a low-threat state to achieve exclusion Clause 2.2.3.2 (f) of AS 3959, including slashing/mowing of grassland and weeds to height of less than 50 mm (in accordance with the City of Wanneroo Firebreak Notice).
3	Maintain POS and road verges to a standard consistent with a vegetation exclusion under Clause 2.2.3.2 of AS3959.
4	Comply with the relevant local government annual firebreak notice issued under s33 of the <i>Bush Fires Act 1954</i> , including establishment and maintenance of firebreaks.
Landowner/occupier – at future planning stages	
No.	Implementation action
1	Prepare a Bushfire Emergency Evacuation Plan for any proposed vulnerable land uses at DA stage.
2	Prepare Bushfire Risk Management Plan for any proposed high risk land uses at DA stage.
Landowner/occupier – prior to building construction and ongoing	
No.	Implementation action
1	Maintain cleared/vacant lots in a low threat state to achieve exclusion Clause 2.2.3.2 (f) of AS 3959, including slashing/mowing of grassland and weeds to height of less than 50 mm (in accordance with the City of Wanneroo Firebreak Notice), until developed to a permanent low fuel state.
2	Adopt bushfire construction standards relevant to the applicable BAL rating for habitable buildings within a Bushfire Prone Area.
3	Comply with the City of Wanneroo annual firebreak notice as amended.
Local government – ongoing management	
No.	Implementation action
1	Maintain road verges and POS to a standard consistent with a vegetation exclusion under Clause 2.2.3.2 of AS3959.

7. References

- Chappell Lambert Everett 2010, Lots 1 & 2 Yanchep Beach Road, Local Structure Plan 76. Available via:
https://www.wanneroo.wa.gov.au/downloads/file/789/lots_1_and_2_yanchep_beach_road_yanchep_structure_plan_-_part_1
- Coffey Environments 2009, *Environmental Assessment and Management Strategies; Lot 103 Yanchep Beach Road, Yanchep*, report prepared for Australand Holdings Limited.
- Department of Fire and Emergency Services (DFES) 2019, *Map of Bush Fire Prone Areas*, [Online], Government of Western Australia, available from:
<https://maps.slip.wa.gov.au/landgate/bushfireprone/>, [27/04/2021].
- Department of Planning (DoP) 2016, *Visual guide for bushfire risk assessment in Western Australia*, Department of Planning, Perth.
- Government of Western Australian 2000, *Bush Forever Volume 2 Directory of Bush Forever Sites*, Department of Environmental Protection, Perth. Available at:
<https://www.dplh.wa.gov.au/information-and-services/district-and-regional-planning/region-planning-schemes/metropolitan-region-scheme/bush-forever-policy>
- Standards Australia (SA) 2018, *Australian Standard AS 3959–2018 Construction of Buildings in Bushfire-prone Areas*, Standards Australia, Sydney.
- Western Australian Planning Commission (WAPC) 2015, *State Planning Policy 3.7 Planning in Bushfire Prone Areas*, Western Australian Planning Commission, Perth.
- Western Australian Planning Commission (WAPC) 2017, *Guidelines for Planning in Bushfire Prone Areas*, Version 1.3 August 2017, Western Australian Planning Commission, Perth.

8. Limitations

Scope of services

This report ("the report") has been prepared by Strategen-JBS&G in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Client and Strategen-JBS&G. 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-JBS&G 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-JBS&G 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-JBS&G has also not attempted to determine whether any material matter has been omitted from the data. Strategen-JBS&G 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-JBS&G. The making of any assumption does not imply that Strategen-JBS&G 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-JBS&G 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.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.

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Appendix A Vegetation plot photos and description



Photo ID: 1a



Photo ID: 1b



Photo ID: 1c

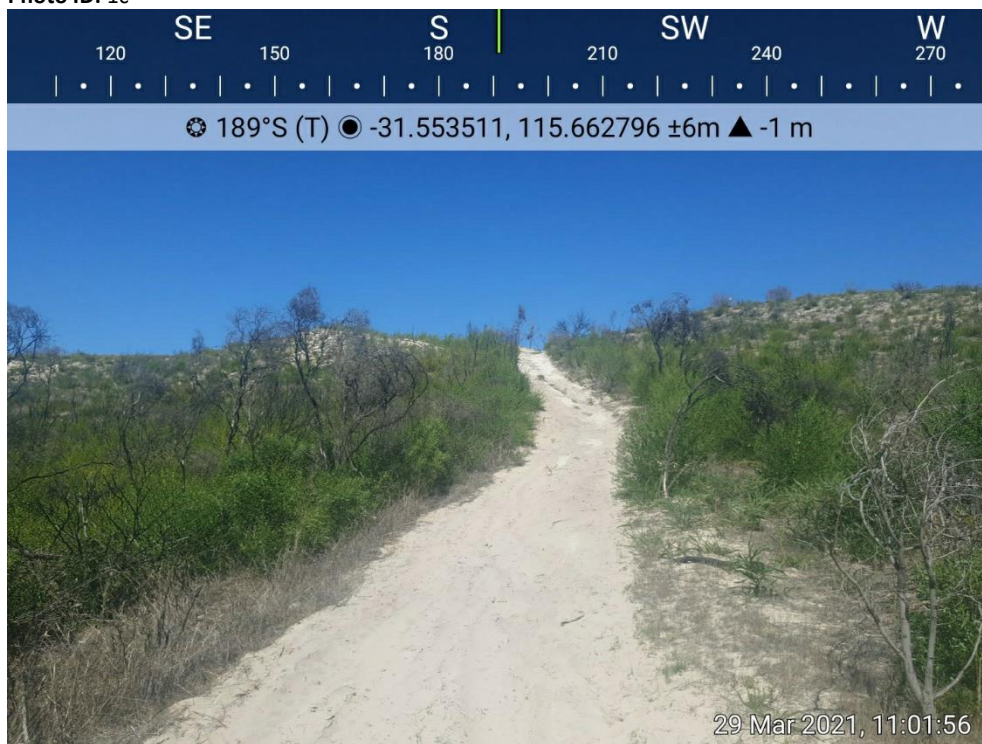


Photo ID: 1d



Photo ID: 1e (foreground)



Photo ID: 1f



Photo ID: 1g		
Plot number		Plot 1
Vegetation classification	Pre-development	Class D Scrub
	Post-development	Class D Scrub
Description / justification		Vegetation with a continuous horizontal and vertical structure, greater than 2 m high at maturity



Photo ID: 2a



Photo ID: 2b

Plot number		Plot 2
Vegetation classification	Pre-development	Class B Woodland
	Post-development	Class B Woodland
Description / justification		Trees 2-30 m at maturity, dominated by trees with a grassy understorey (lacks shrubby middle layer and deep surface litter)



Photo ID: 3a

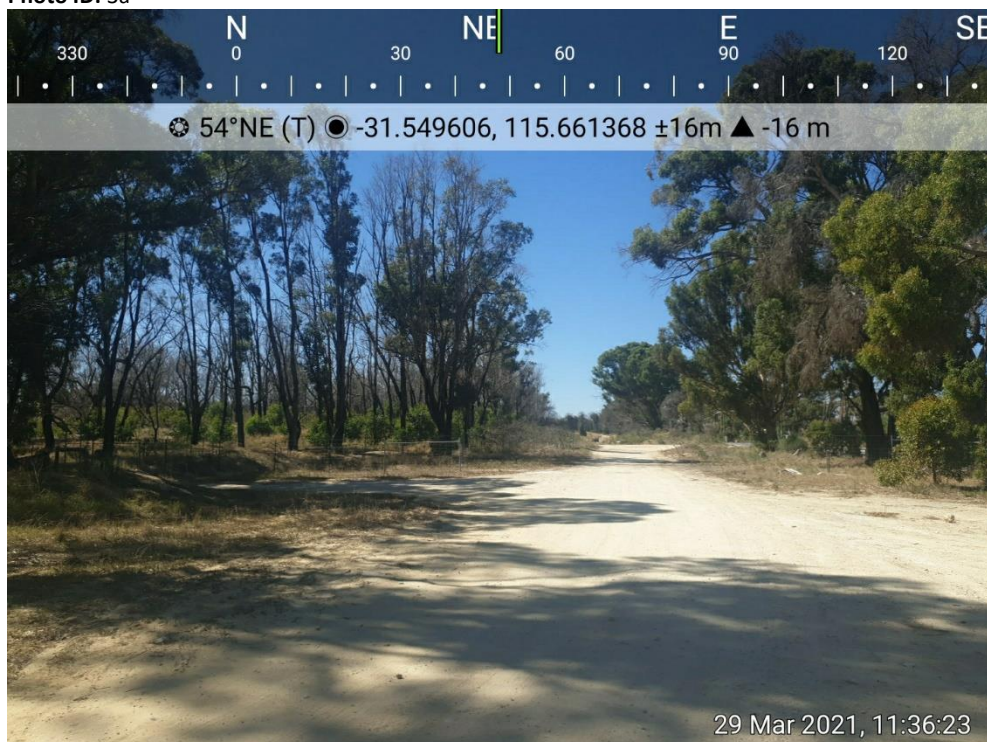


Photo ID: 3b

Plot number		Plot 3
Vegetation classification	Pre-development	Class B Woodland
	Post-development	Class B Woodland
Description / justification		Trees 2-30 m at maturity, dominated by trees with a grassy understorey (lacks shrubby middle layer and deep surface litter)



Photo ID: 4a



Photo ID: 4b



Photo ID: 4c

Plot number		Plot 4
Vegetation classification	Pre-development	Class G Grassland
	Post-development	Class G Grassland
Description / justification		Grassland greater than 100 mm in height

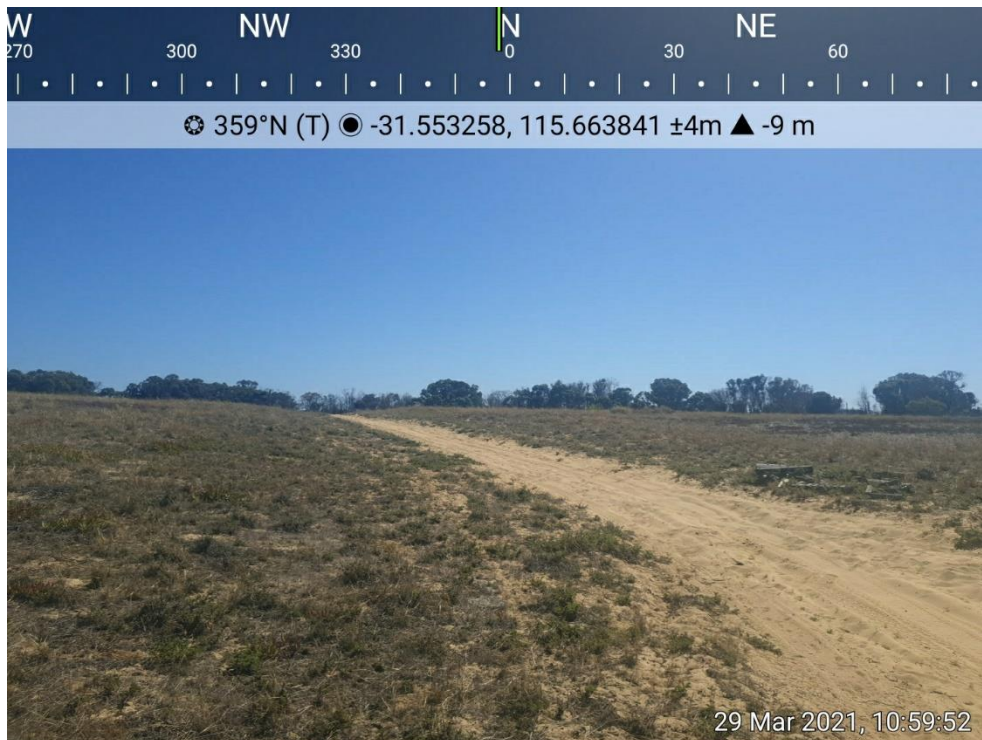


Photo ID: 5a

Plot number		Plot 5
Vegetation classification	Pre-development	Class G Grassland
	Post-development	Class G Grassland
Description / justification		Grassland at maturity, greater than 100 mm in height

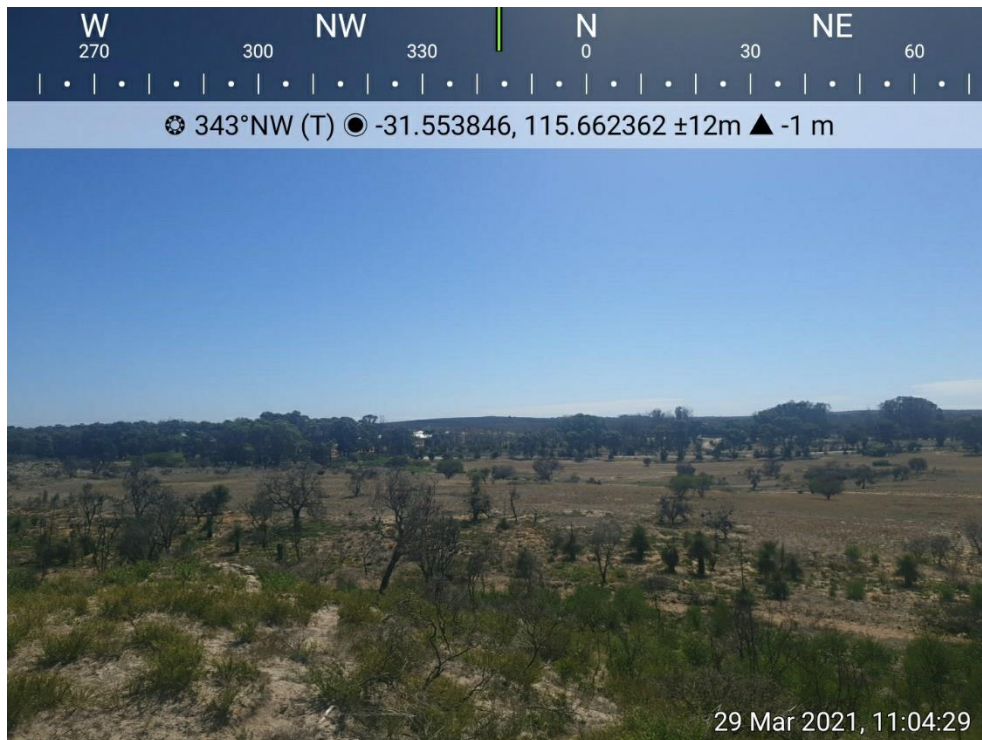


Photo ID: 6a



Photo ID: 6b

Plot number		Plot 6
Vegetation classification	Pre-development	Class D Scrub
	Post-development	Class D Scrub
Description / justification		Vegetation with a continuous horizontal and vertical structure, greater than 2 m high at maturity



Photo ID: 7a (on right)

Plot number		Plot 7
Vegetation classification	Pre-development	Class A Forest
	Post-development	Class A Forest
Description / justification		Trees 10-30 m high at maturity, dominated by Eucalypts, multi-tiered structure comprising tall canopy layer, shrubby middle layer and grass/herb/sedge understorey

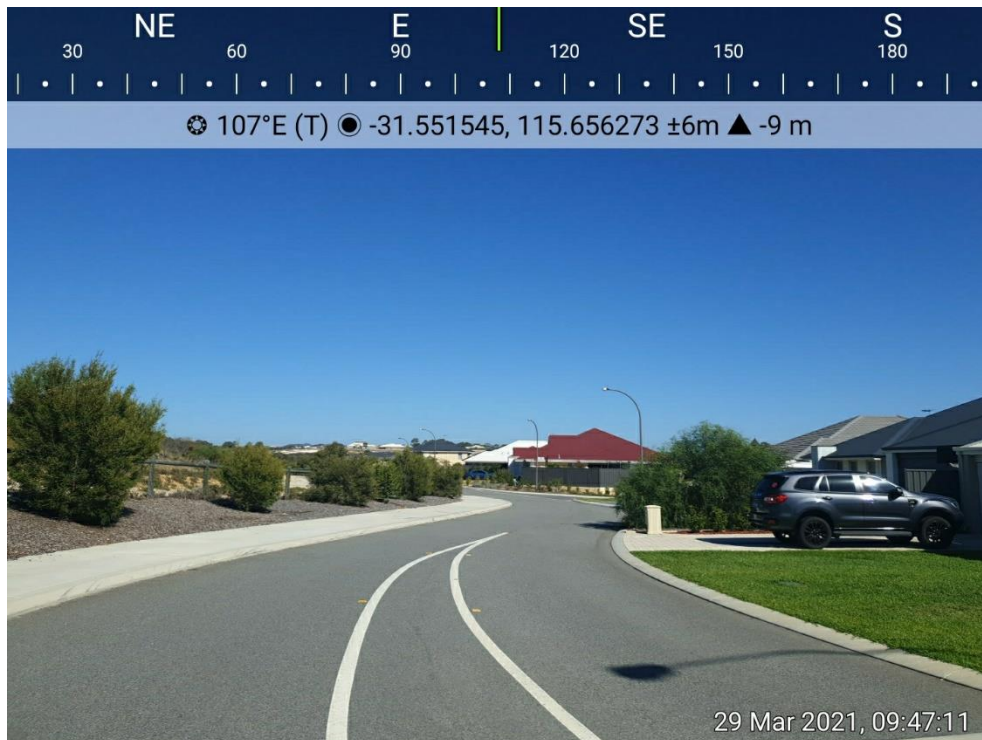


Photo ID: 8a

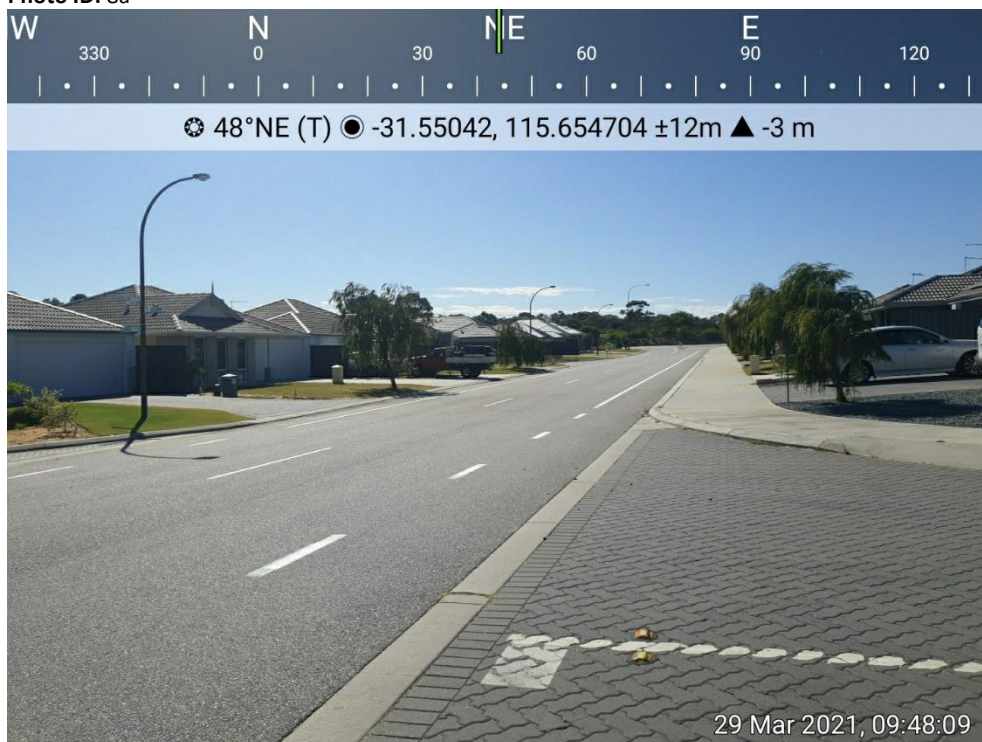


Photo ID: 8b

Plot number		Plot 8
Vegetation classification	Pre-development	Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])
	Post-development	Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])
Description / justification		Low threat cultivated gardens and maintained lawns within surrounding properties and non-vegetated areas including roads, footpaths, driveways and building footprints



Photo ID: 9a



Photo ID: 9b



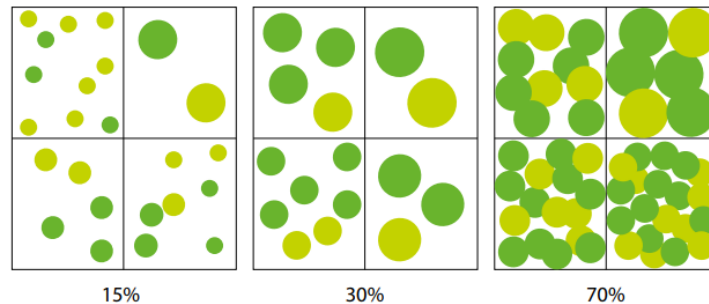
Photo ID: 9c

Plot number		Plot 9
Vegetation classification	Pre-development	Various vegetation classifications
	Post-development	Excludable under Clause 2.2.3.2 of AS 3959
Description / justification		Areas to be modified to non-vegetated, low-threat vegetation or otherwise excludable vegetation under Clause 2.2.3.2 of AS 3959.

Appendix B APZ standards (Schedule 1 of Guidelines)

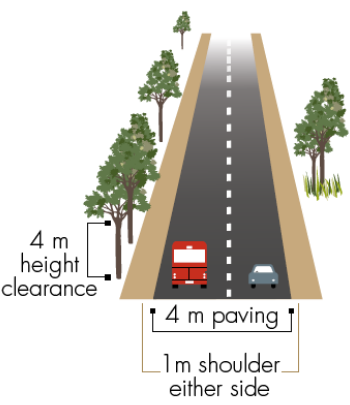
Schedule 1: Standards for Asset Protection Zones

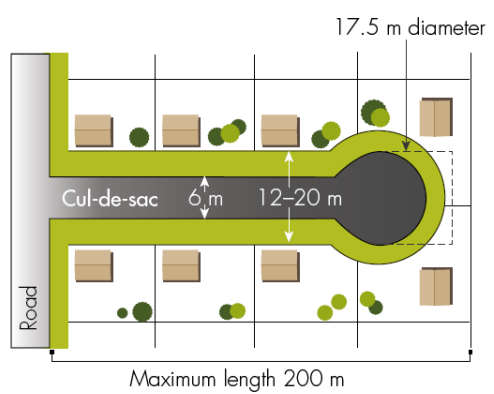
- **Fences:** within the APZ are constructed from non-combustible materials (e.g. iron, brick, limestone, metal post and wire). It is recommended that solid or slatted non-combustible perimeter fences are used.
- **Objects:** within 10 metres of a building, combustible objects must not be located close 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.

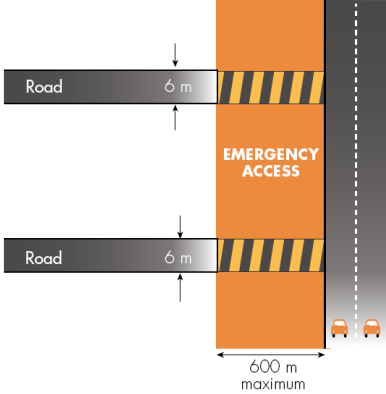


- **Shrubs (0.5 metres to 5 metres in height):** should not be located under trees or within 3 metres of buildings, should not be planted in clumps greater than 5m² in area, clumps of shrubs should be separated from each other and any exposed window or door by at least 10 metres. Shrubs greater than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

Appendix C Vehicular access technical standards of the Guidelines

Public roads	
Acceptable solution A3.2	A public road is to meet the requirements in Table 1, Column 1.
Explanatory note E3.2	<p>Trafficable surface: Widths quoted for access routes refer to the width of the trafficable surface. A six metre trafficable surface does not necessarily mean paving width. It could, for example, include four metre wide paving one metre wide constructed road shoulders. In special circumstances, where eight lots or less are being serviced, a public road with a minimum trafficable surface of four metres for a maximum distance of 90 metres may be provided subject to the approval of both the local government and Department of Fire and Emergency Services.</p> <p>Public road design: All roads should allow for two-way traffic to allow conventional two-wheel drive vehicles and fire appliances to travel safely on them.</p>  <p>The diagram illustrates a cross-section of a public road. It shows a central paved area with a dashed white line down the middle, indicating two-way traffic. On either side of the paved area are shoulders. A dimension line indicates a '4 m paving' width for the central area. Another dimension line indicates '1 m shoulder either side'. To the left of the road, a vertical dimension line shows a '4 m height clearance' over a tree. A red fire truck and a blue car are shown on the road, with the fire truck positioned on the left side of the dashed line.</p>

Cul-de-sac (including a dead-end road)	
Acceptable solution A3.3	<p>A cul-de-sac and/ or a dead end road should be avoided in bushfire prone areas. Where no alternative exists (i.e. the lot layout already exists and/ or will need to be demonstrated by the proponent), the following requirements are to be achieved:</p> <ul style="list-style-type: none"> • Requirements in Table 1, Column 2 • Maximum length: 200 metres (if public emergency access is provided between cul-de-sac heads maximum length can be increased to 600 metres provided no more than eight lots are serviced and the emergency access way is no more than 600 metres) • Turn-around area requirements, including a minimum 17.5 metre diameter head.
Explanatory note E3.3	<p>In bushfire prone areas, a cul-de-sac subdivision layout is not favoured because they do not provide access in different directions for residents. In some instances it may be possible to provide an emergency access way between cul-de-sac heads to a maximum distance of 600 metres, so as to achieve two-way access. Such links must be provided as right of ways or public access easements in gross to ensure accessibility to the public and fire services during an emergency. A cul-de-sac in a bushfire prone area is to connect to a public road that allows for travel in two directions in order to address Acceptable Solution A3.1.</p>  <p>The diagram illustrates a cul-de-sac layout. A vertical road on the left connects to a horizontal cul-de-sac. The cul-de-sac has a width of 6m. It terminates in a semi-circular turn-around area with a diameter of 17.5m. The length of the cul-de-sac from the road to the start of the turn-around area is 12-20m. The maximum length of the cul-de-sac is 200m. The diagram also shows several lots with buildings and trees along the cul-de-sac.</p>

Emergency access way	
Acceptable solution A3.6	<p>An access way that does not provide through access to a public road is to be avoided in bushfire prone areas. Where no alternative exists (this will need to be demonstrated by the proponent), an emergency access way is to be provided as an alternative link to a public road during emergencies. An emergency access way is to meet all of the following requirements:</p> <ul style="list-style-type: none"> • Requirements in Table 1, Column 4 • No further than 600 metres from a public road • Provided as right of way or public access easement in gross to ensure accessibility to the public and fire services during an emergency • Must be signposted.
Explanatory note E3.6	<p>An emergency access way is not a preferred option however may be used to link up with roads to allow alternative access and egress during emergencies where traffic flow designs do not allow for two-way access. Such access should be provided as a right-of-way or easement in gross to ensure accessibility to the public and fire emergency services during an emergency.</p> <p>The access should comply with minimum standards for a public road and should be signposted. Where gates are used to control traffic flow during non-emergency periods, these must not be locked. Emergency access ways are to be no longer than 600 metres and must be adequately signposted where they adjoin public roads.</p> <p>Where an emergency access way is constructed on private land, a right of way or easement in gross is to be established.</p> 

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

Appendix D Water technical standards of the Guidelines

Reticulated areas	
Acceptable solution A4.1	The subdivision, development or land use is provided with a reticulated water supply in accordance with the specifications of the relevant water supply authority and Department of Fire and Emergency Services.
Explanatory note E4.1	Water supply authorities in Western Australia include the Water Corporation, Aqwest and the Busselton Water Board. The Water Corporation's 'No. 63 Water Reticulation Standard' is deemed to be the baseline criterion for developments and should be applied unless local water supply authorities' conditions apply.

Appendix E City of Wanneroo Firebreak Notice (2020)

IMPORTANT FIRE MITIGATION NOTICE

**FIRE MITIGATION MEASURES MUST BE IN PLACE BY 1 NOVEMBER
AND MAINTAINED UNTIL 30 APRIL EACH YEAR.**

This is a requirement under the Bush Fires Act 1954 Section 33.

Failure to comply with this Notice may incur penalties of up to \$5000 and the works required by this Notice will be carried out at the expense of the owner/occupier.

FIRE MANAGEMENT REQUIREMENTS FOR LAND LESS THAN 4000sqm

- Maintain grasses and inflammable materials with the exception of living trees on the entire property to a height of no more than 50 millimetres. The entire property is required to be maintained below 50 millimetres from 1 November each year until 30 April the following year.
- OR
- A 3 metre wide trafficable firebreak as close as possible to all external boundaries of the property must be installed by 1 November each year and maintained until 30 April the following year.
 - If it is not possible to install the firebreak adjacent to the external boundary of the property due to naturally occurring obstacles, it is acceptable to install the firebreak around the obstacle. If this requires the firebreak to be greater than 5 metres away from the external boundary, a firebreak variation is required.
 - Ensure a minimum vertical clearance of 4 metres is maintained along the firebreaks to enable vehicles to drive along the firebreaks without access being obstructed.
- Where a property is affected by an approved bushfire management plan, property owners must still comply with all requirements in this Notice and with any additional requirements outlined within that plan.

FIRE MANAGEMENT REQUIREMENTS FOR LAND GREATER THAN 4000sqm

- A 3 metre wide trafficable firebreak as close as possible to all external boundaries of the property must be installed by 1 November each year and maintained until 30 April the following year.
 - If it is not possible to install the firebreak adjacent to the external boundary of the property due to naturally occurring obstacles, it is acceptable to install the firebreak around the obstacle. If this requires the firebreak to be greater than 5 metres away from the external boundary, a firebreak variation is required.
 - Ensure a minimum vertical clearance of 4 metres is maintained along the firebreaks to enable vehicles to drive along the firebreaks without access being obstructed.
- Install and maintain a 20 metre bare earth area around all hay stacks and/or fuel dumps.
- Where a property is affected by an approved bushfire management plan, property owners must still comply with all requirements in this Notice and with any additional requirements outlined within that plan.

ALL VACANT LAND **GREATER** THAN 4000sqm

- A 3 metre wide trafficable firebreak as close as possible to all external boundaries of the property must be installed by 1 November each year and maintained until 30 April the following year.
- Ensure a minimum vertical clearance of 4 metres is maintained along the firebreaks to ensure vehicles can drive along the firebreaks without being impeded by tree branches.
- If the land is an area greater than 4000sqm but less than 50,000sqm (5 hectares) all grass on the land must be maintained to a height of less than 50 millimetres.
- If the land is an area of 50,000sqm (5 hectares) or greater, the grass must be maintained on the land to a height no greater than 50 millimetres for a distance of 10 metres from any firebreak.

Frequently Asked Questions

I live in a residential area, does this notice apply to me?

Yes. All City of Wanneroo property owners must comply with the Bush Fires Act 1954.

Please refer overleaf for fire management requirements to be in place by 1 November to ensure your property is compliant.

Most properties under 1000sqm will automatically comply if gardens are maintained.

Do I need a Bushfire Survival Plan?

If you live in, on or near bushland, you are at risk from a bushfire and developing a bushfire survival plan is critical.

Visit the Department of Fire and Emergency Services website for information on how to develop a plan for your property **dfes.wa.gov.au**

I am concerned my neighbour's property is not compliant, what can I do?

All properties are required to be compliant by 1 November. If you think your neighbour's property does not comply with the requirements as outlined in this Notice, please let the City know by calling 9405 5000.

I own a vacant lot, do I need a firebreak?

Firebreak requirements differ depending on your lot size and vegetation levels. If vegetation is unable to be maintained to a height of 50 millimetres or less (living trees exempt), a firebreak must be installed by 1 November. Please refer overleaf for more information.

I am unable to meet the requirements outlined, what should I do?

If it is considered impracticable for any reason to implement any of the requirements of this Notice, an application for a firebreak variation must be made to the City of Wanneroo by no later than 18 October of each year. If permission is not granted, the requirements of this Notice must be complied with.

Visit the City's website **wanneroo.wa.gov.au/fireinformation** to apply for a variation.

Where can I learn more about this Notice and bushfire management?

Visit the City's website **wanneroo.wa.gov.au/fireinformation** to learn more.

Please note, in addition to the requirements of this Notice, if a City of Wanneroo Fire Control Officer considers further works are necessary to reduce the risk of bushfire, Landowners will be notified via letter to the address shown on the City of Wanneroo rates record for the relevant land.

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Document Status

Report version	Rev No.	Purpose	Author	Reviewed and Approved for Issue	
				Name	Date
Draft Report	Rev A	Client review	Carli O'Brien	Zac Cockerill (BPAD 37803, Level 2)	7 May 2021
Final Report	Rev 0	Issued for use: to address Condition 10 of WAPC subdivision approval	Carli O'Brien	Zac Cockerill (BPAD 37803, Level 2)	11 May 2021
Final Report	Rev 1	Issued for use: updated to address new plan of subdivision	Zac Cockerill (BPAD 37803, Level 2)	Zac Cockerill (BPAD 37803, Level 2)	25 June 2021

