

Bushfire Management Plan Coversheet

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

Bushfire Management Plan and Site Details

Site Address / Plan Reference: Lots 9042 and 9052 Wattleup Road and Lot 305 Whadjuk Drive

Suburb: Hammond Park

State: WA

P/code: 6164

Local government area: City of Cockburn

Description of the planning proposal: Structure Plan Amendment

BMP Plan / Reference Number: 59317/131,756

Version: R01 Rev 1

Date of Issue: 1/06/2022

Client / Business Name: Aigle Royal

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

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

The proposal is a Structure Plan Amendment which is a strategic planning proposal.

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

BPAD Accredited Practitioner Details and Declaration

Name	Accreditation Level	Accreditation No.	Accreditation Expiry
Zac Cockerill	Level 2	37803	31/08/2022
Company		Contact No.	
JBS&G Australia Pty Ltd T/A Strategen JBS&G		(08) 9792 4797	

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

Signature of Practitioner



Date 1/06/2022

Aigle Royal
Bushfire Management Plan (Structure Plan
amendment)

Lot 9042 and 9052 Wattleup Road and Lot 305
Whadjuk Drive, Hammond Park

1 June 2022

JBS&G59317/131,756 (Rev 1)

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

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Appendices

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Appendix B	APZ standards (Schedule 1 of the Guidelines)
Appendix C	Vehicular access technical standards of the Guidelines
Appendix D	City of Cockburn Firebreak Notice (2021-2022)

1. Proposal details

1.1 Background

Aigle Royal is seeking to lodge a Structure Plan amendment as depicted in Figure 1. The subject of the Structure Plan amendment sits within the southeast portion of the Structure Plan that covers parent Lots 9042 and 9052 Wattleup Road; and Lot 305 Whadjuk Drive, situated in Hammond Park in the City of Cockburn (project area). The Structure Plan amendment aims to facilitate development of a local centre (R80). The Site Plan (Figure 2) identifies two proposed fast food outlets and car parking within the Structure Plan amendment area.

1.2 Site description

The project area is in a predominantly cleared, earthworked state, surrounded by (see Figure 3):

- future Whadjuk Road and undeveloped (cleared/earthworked) residential land to the north
- existing Wattleup Road and vegetated Frankland Park to the south
- existing residential development and rural properties to the east
- partially developed residential land to the west.

The project area is designated as bushfire prone on the *Map of Bush Fire Prone Areas* (DFES 2021; see Plate 1).

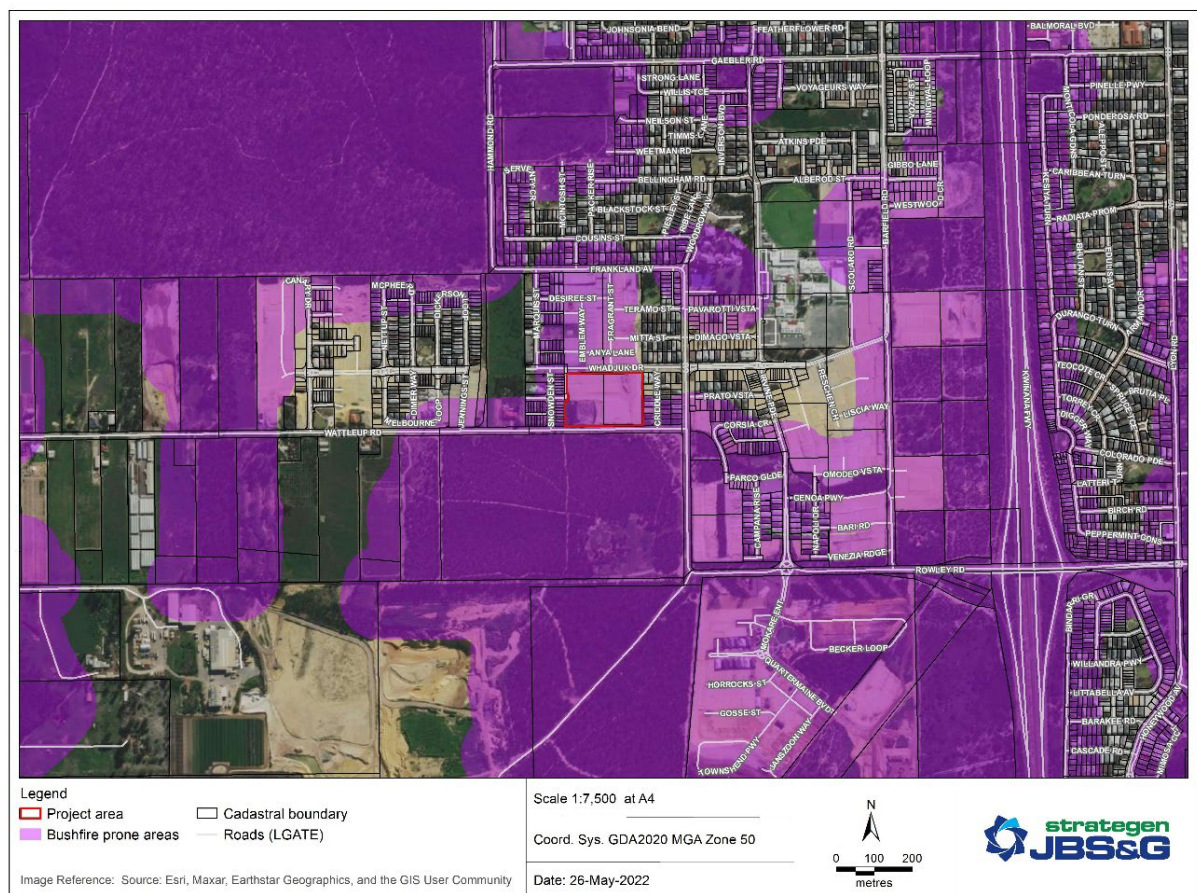


Plate 1: Map of Bush Fire Prone Areas (DFES 2021)

1.3 Purpose

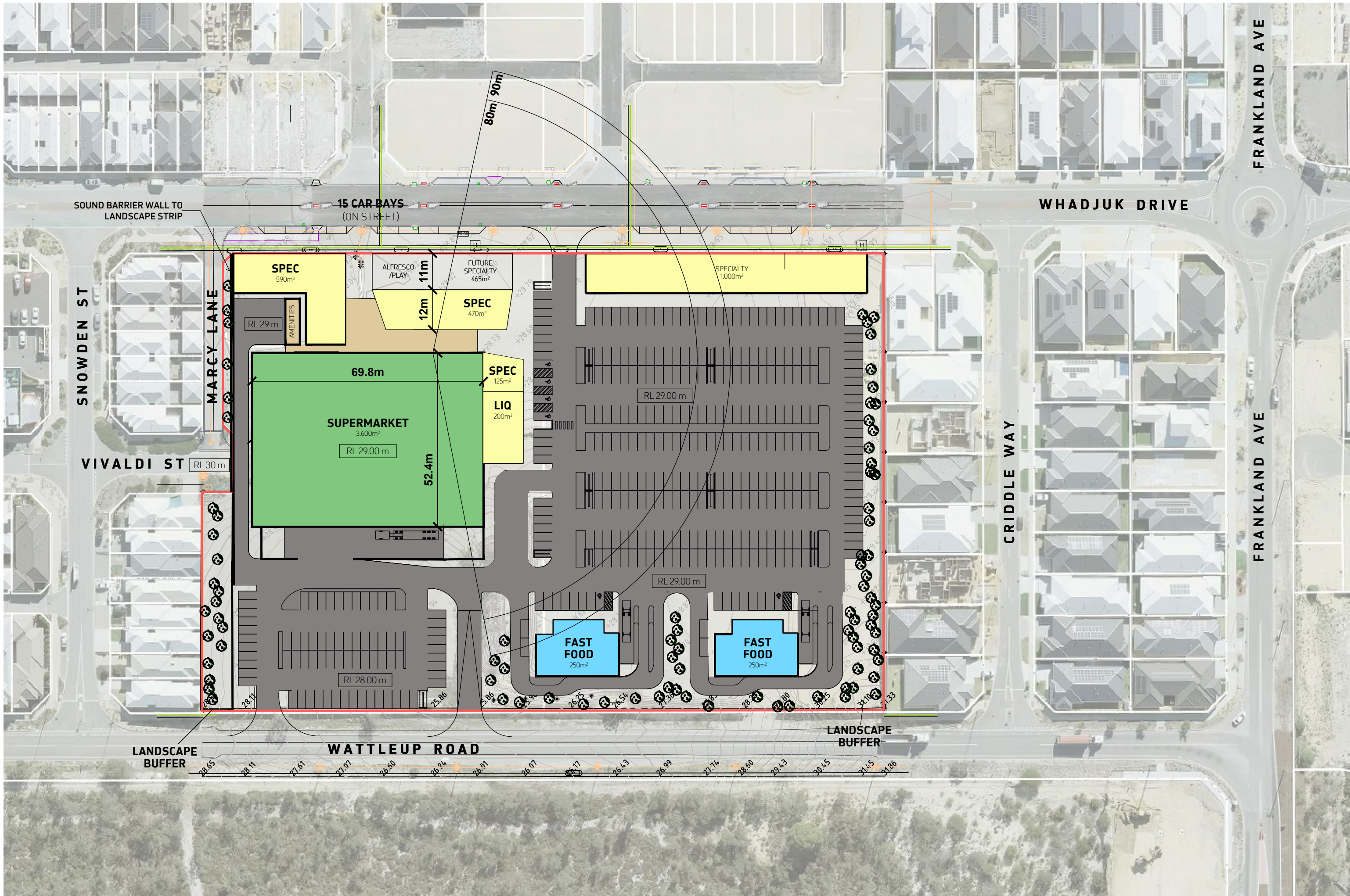
This Bushfire Management Plan (BMP) has been prepared to accompany the Structure Plan amendment and address requirements under Policy Measures 6.2 and 6.3 of *State Planning Policy 3.7 Planning in Bushfire-Prone Areas* (SPP 3.7; WAPC 2015) and *Guidelines for Planning in Bushfire-Prone Areas Version 1.4* (the Guidelines; WAPC 2021).

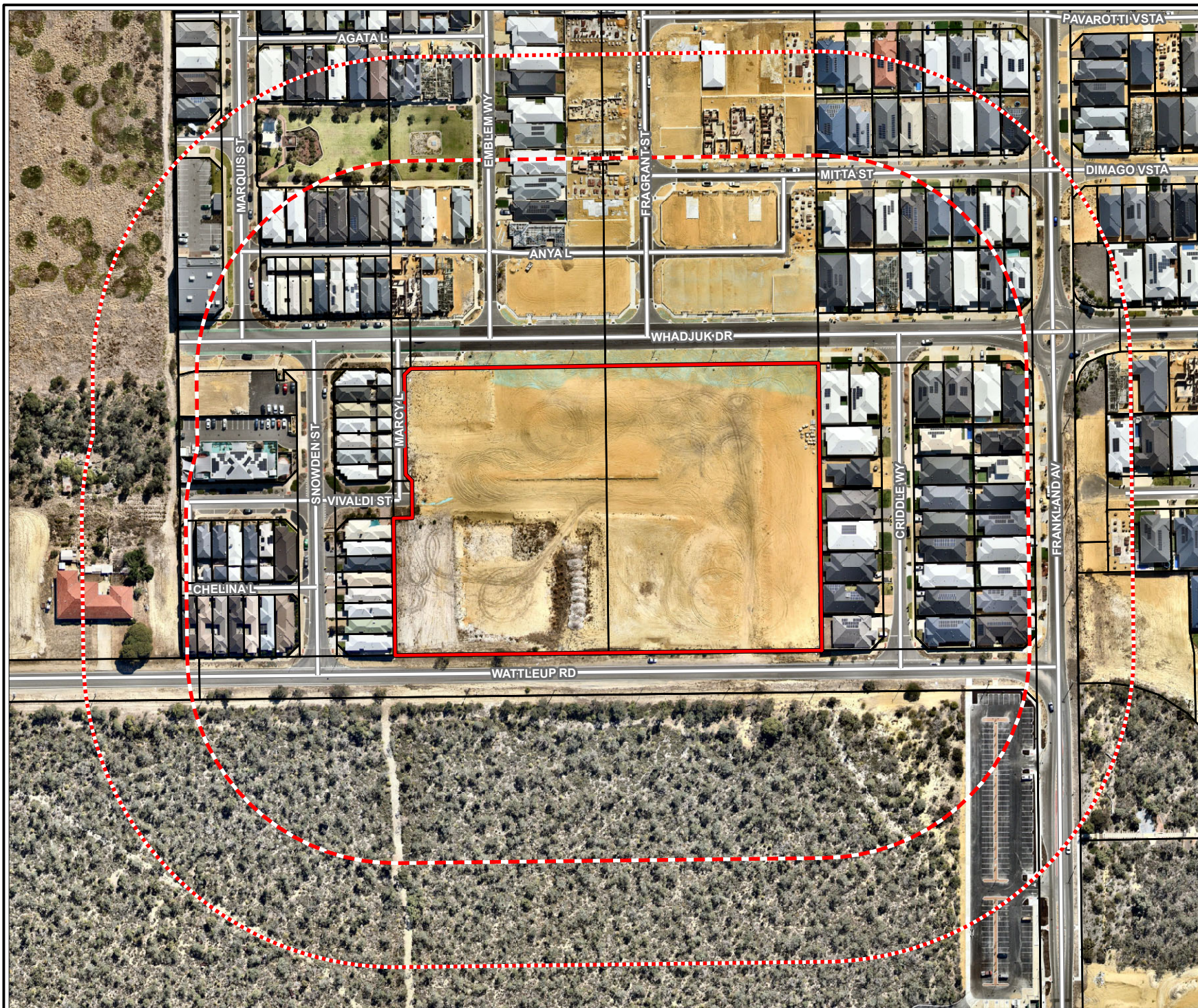
1.4 Other plans/reports

A previous version of this BMP was prepared to accompany the original Structure Plan amendment over the project area and this updated version addresses the recent Structure Plan amendment over the southeast portion of the site. There are no other known bushfire or environmental reports or assessments that have been prepared previously for the project area.



ROWE
GROUP
DESIGN





Legend

- Project area
- 100m assessment area
- 150m assessment area
- Cadastral boundary
- Roads (MRWA)



Job No: 59317

Client: Aigle Royal

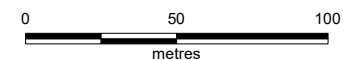
Version: A

Date 26/05/2022

Drawn By: IA

Checked By: CT

Scale 1:2,500 at A4



Coor. Sys. GDA 1994 MGA Zone 50

**Local Centre, Wattleup Road,
Hammond Park, WA**

SITE OVERVIEW

FIGURE 3

2. Environmental considerations

2.1 Native vegetation - modification and clearing

As the project area is already in a predominantly cleared state, the proposal is not expected to result in any further significant clearing of native vegetation. A small pocket of degraded scrub is retained in the southwest of the project area; however, it is noted that this vegetation occurs on land intended for residential and car-parking use (as per Figure 2), so is expected to be removed such that the entire site will ultimately present as a non-vegetated/low threat managed site.

A search of publicly available environmental data relating to the project area has been undertaken and is summarised in Table 1.

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	✓			N/A
Swan Bioplan Regionally Significant Natural Area	✓			N/A
Ecological linkages		✓	✓	A Perth Regional Ecological Linkage occurs both within and adjacent to the project area.
Wetlands	✓			N/A
Waterways	✓			N/A
Threatened Ecological Communities listed under the EPBC Act		✓	✓	Threatened Ecological Communities are mapped as occurring within and adjacent to the project area. Endangered Banksia Woodlands of the Swan Coastal Plain TEC is mapped as being likely to occur within and adjacent to the project area. However, given the cleared status of the site, TECs are not expected to occur. Tuart Woodlands are not mapped as occurring.
Threatened and priority flora				Mapping layer not available at the time of report preparation.
Fauna habitat listed under the EPBC Act		✓	✓	Potential Quenda habitat is mapped as occurring within and adjacent to the project area. With respect to Carnaby's Black Cockatoo, the project area and adjacent areas are mapped as containing: - confirmed roosting areas - potential feeding areas. However, given the cleared status of the site, conservation significant fauna habitat is not expected to occur.
Threatened and priority fauna				Mapping layer not available at the time of report preparation.
Bush Forever Site			✓	Bush Forever site 392 occurs 360 m northwest of the project area.
DBCA managed lands and waters (includes legislated lands and waters and lands of interest)	✓			N/A

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	
Conservation covenants	✓			N/A

2.2 Revegetation / Landscape Plans

No revegetation is proposed as part of the proposal. Any landscaping proposed will consist of low threat managed gardens and street scaping in accordance with AS 3959 Clauses 2.2.3.2 (e) and (f) and Schedule 1 of the Guidelines (refer to Appendix B). A landscaping plan will be prepared as part of detailed design at the subdivision and/or Development Application (DA) stage of the proposal, which will reiterate the non-vegetated/low threat managed outcomes intended across the site.

3. Bushfire assessment results

3.1 Assessment inputs

3.1.1 Vegetation classification

3.1.1.1 Methodology

Strategen-JBS&G assessed classified vegetation and exclusions within 150 m of the project area through on-ground verification on 13 August 2020 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 4.

3.1.1.2 Classification

Regional vegetation surveys and mapping of the Swan Coastal Plain indicates the project area and adjacent land is contained within the Bassendean Complex – Central and South. This vegetation complex is described as:

- Woodland of *E. marginata* – *A. fraseriana* – *Banksia* spp. to low woodland of *Melaleuca* spp. and sedgelands on the moister sites. This area includes the transition of *E. marginata* to *E. todtiana* in the vicinity of Perth.

The indicator species of the Bassendean Complex were identified within plots of classified vegetation within and adjacent to the project area. However, given the assessment area is predominately cleared and developed, areas of remnant native vegetation are limited.

Classified vegetation was identified adjacent to the project area in the following locations:

- Class D scrub containing a predominant low banksia fuel profile west, south and southeast of the project area
- Class G grassland west and east of the project throughout adjacent rural land and on undeveloped residential land with no enforceability for ongoing grassland management.

As previously stated, the project area is already predominantly cleared but will be modified where required to achieve a non-vegetated/low threat managed state under Clauses 2.2.3.2 (e) and (f) of AS3959, as will the broader sections of the Structure Plan area to the north as per Figure 1.

Land already excluded from classification throughout the assessment area includes:

- existing non-vegetated land (i.e. infrastructure, roads, footpaths, etc) excluded under Clause 2.2.3.2 (e)
- low threat managed vegetation (i.e. managed street verges/streetscaping, cleared vacant residential lots, managed gardens, turf, active POS, staging buffers, firebreaks, etc) excluded under Clause 2.2.3.2 (f).

3.1.1.3 Effective slope

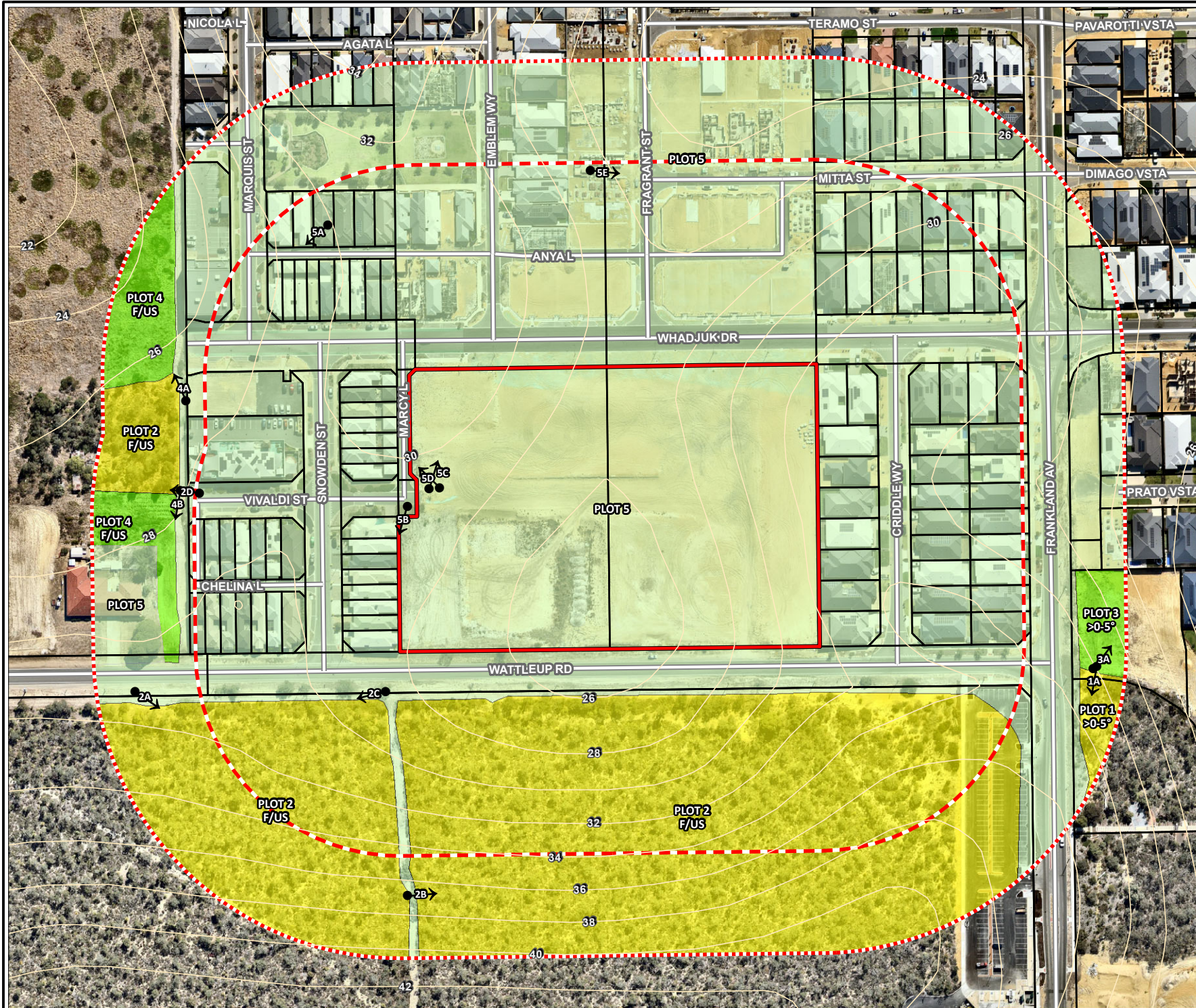
Strategen-JBS&G assessed effective slope under classified vegetation through on-ground verification on 13 August 2020 in accordance with AS 3959. Results were cross-referenced with DPIRD 2m contour data and are depicted in Figure 4. All classified vegetation to the west and south of the project area was assessed to occur on flat/upslope land (i.e. effective slope of 0 degrees). Classified vegetation identified opposite Frankland Avenue to the east of the project area was assessed to be subject to a downslope of 0–5 degrees.

3.1.1.4 Summary of inputs

Figure 4 illustrates the anticipated post-development vegetation classifications and exclusions following completion of Structure Plan development works and implementation of low threat landscaping throughout the project area. 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	Downslope >0–5°	Combination of existing and revegetated Banksia scrub vegetation 2–6 m in height, east of Frankland Avenue.
2	Class D Scrub	Flat/upslope (0°)	Intact Banksia scrub vegetation 2–6 m in height south of Wattleup Road within Frankland Park.
3	Class G Grassland	Downslope >0–5°	Cleared undeveloped land with no enforceable mechanism for ongoing grassland management.
4	Class G Grassland	Flat/upslope (0°)	Unmanaged grassland greater than 100 mm in height, or cleared undeveloped land with no enforceable mechanism for ongoing grassland management.
5	Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])	N/A	Existing non-vegetated land (i.e. infrastructure, roads, footpaths, etc) and low threat managed vegetation (i.e. managed street verges/streetscaping, cleared vacant residential lots, managed gardens, turf, active POS, firebreaks, etc)



Legend

- Project area
- 100m assessment area
- 150m assessment area
- Cadastral boundary
- Vegetation classification
 - Class D Scrub
 - Class G Grassland
 - Clause 2.2.3.2 (e) & (f)
 - Topographic contours (mAHD)
 - Photo point directions
 - Roads (MRWA)



Job No: 59317

Client: Aigle Royal

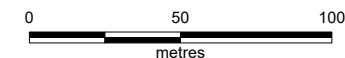
Version: A

Date 27/05/2022

Drawn By: IA

Checked By: CT

Scale 1:2,500 at A4



Coor. Sys. GDA 1994 MGA Zone 50

**Local Centre, Wattleup Road,
Hammond Park, WA**

**VEGETATION CLASSIFICATION
AND EFFECTIVE SLOPE**

FIGURE 4

3.2 Assessment outputs

3.2.1 Bushfire Attack Level (BAL) contour assessment

The Site Plan (Figure 2) indicates a detailed development layout; therefore, Strategen-JBS&G has undertaken a BAL contour assessment in accordance with Method 1 of AS 3959 for the project area (Figure 5). 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 comply with relevant bushfire protection criteria of the Guidelines.

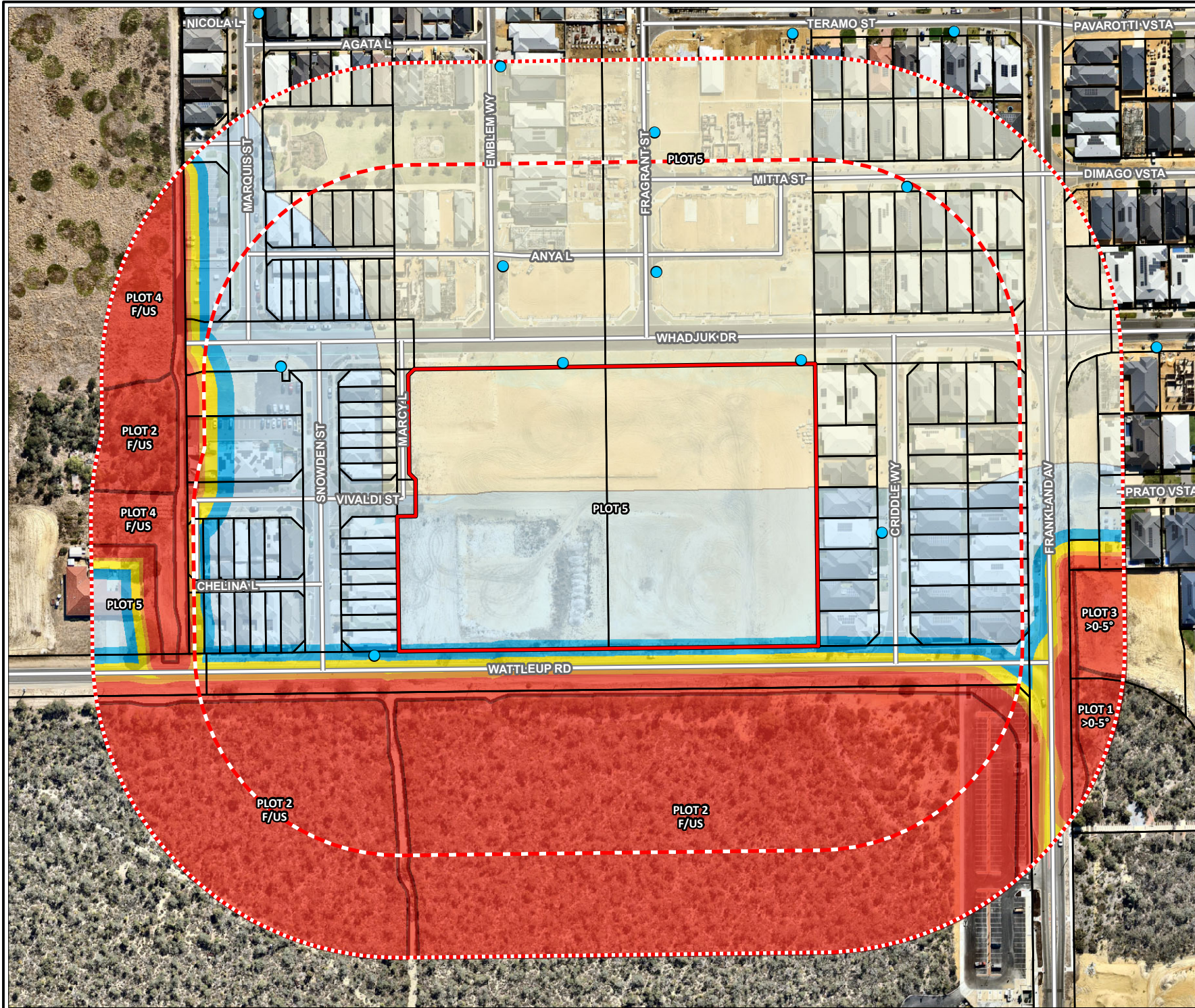
The BAL contours are based on:

- the vegetation classifications and effective slope observed at the time of inspection
- consideration of the proposed on-site clearing/development extent associated with the Structure Plan, resultant vegetation exclusions and separation distances achieved.

Results of the BAL contour assessment are detailed in Table 3 and illustrated in Figure 5. The highest BAL applicable to the external boundary of the proposed lots is BAL-19. Updated BAL contour assessment undertaken at the subdivision/DA stage may determine additional BAL reductions subject to detailed development design.

Table 3: BAL contour assessment results

Method 1 BAL determination				
Vegetation plot	Vegetation classification	Effective slope	Separation distance	Highest BAL
1	Class D Scrub	Downslope >0–5°	>100 m	BAL-Low
2	Class D Scrub	Flat/upslope (0°)	19-<27 m	BAL-19
3	Class G Grassland	Downslope >0–5°	>50 m	BAL-Low
4	Class G Grassland	Flat/upslope (0°)	>50 m	BAL-Low
5	Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])	N/A	N/A	N/A



Legend

- Project area
- 100m assessment area
- 150m assessment area
- Cadastral boundary
- Classified vegetation
- BAL contours**
- BAL FZ
- BAL 40
- BAL 29
- BAL 19
- BAL 12.5
- BAL Low
- Water Hydrant (WCORP-070)
- Roads (MRWA)



Job No: 59317

Client: Aigle Royal

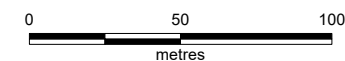
Version: A

Date 27/05/2022

Drawn By: IA

Checked By: CT

Scale 1:2,500 at A4



Coord. Sys. GDA 1994 MGA Zone 50

**Local Centre, Wattleup Road,
Hammond Park, WA**

BAL CONTOUR MAP

FIGURE 5

4. Identification of bushfire hazard issues

4.1 Bushfire context

The project area is surrounded by existing/proposed urban development in the form of roads, residential/commercial precincts and low threat managed landscaping to the north, east and west that do not pose a bushfire threat.

The greatest bushfire threat to proposed development is from Frankland Park to the south, which comprises a fire run of approximately 375 m through predominant banksia scrub vegetation. Frankland Park also provides connectivity to broader tracts of remnant banksia scrub throughout the wider Mandogalup locality approximately 1–2 km to the south and southwest. A potential bushfire approaching the site from the south/southwest has the potential to exhibit elevated levels of radiant heat and ember attack, particularly under conducive weather conditions associated with standard summer afternoon prevailing winds. The permanent separation from Wattleup Road, as well as the lot boundary firebreaks maintained within Frankland Park, provide substantial separation between proposed development areas and the predominant bushfire hazards such that compliant development is achievable.

4.2 Bushfire hazard issues

Examination of strategic development design in accordance with the Site Plan (Figure 2) and post-development classified vegetation extent has identified the following bushfire hazard issues to be considered at future planning stages:

1. The project area is located within a bushfire prone area and subject to a BAL above BAL-LOW due to the on-site and surrounding bushfire prone vegetation hazards and therefore requires an assessment against the bushfire protection criteria of the Guidelines in accordance with Policy Measure 6.3 of SPP 3.7.
2. The BAL contour map (Figure 5) demonstrates that the project area will achieve BAL-29 or lower; however, the proposed fast food outlets are not a class of building that requires BAL-rated construction in accordance with AS3959.
3. The Site Plan depicts multiple connections with the surrounding public road network in Wattleup Road to the south, Vivaldi Street to the west, Whadjuk Drive to the north and a future road to the east.
4. Future public roads will need to be constructed to comply with relevant technical standards of the Guidelines where applicable.
5. Proposed development will need to pay due regard to development staging where required in relation to the provision and maintenance of low threat staging buffers and the provision of two public vehicular access routes for all development stages.
6. Proposed development will be provided with a reticulated water supply through extension of services/street hydrant network from surrounding urban development in accordance with relevant Water Corporation design standards.

Based on the above, Strategen-JBS&G considers the bushfire hazards within and adjacent to the project area and the associated bushfire risks are readily manageable through standard acceptable solution responses outlined in the Guidelines. Bushfire mitigation strategies applicable to the proposed development are addressed in Section 5 of this BMP.

5. Assessment against the 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	Performance Principle	Method of compliance	Statement of development compliance	Compliance achieved
		Acceptable solutions		
Element 1: Location	Performance Principle P1 The strategic planning proposal, subdivision and development application is located in an area where the bushfire hazard assessment is or will, on completion, be moderate or low, or a BAL-29 or below, and the risk can be managed. For unavoidable development in areas where BAL-40 or BAL-FZ applies, demonstrating that the risk can be managed to the satisfaction of the decision-maker.	A1.1 Development location The strategic planning proposal, subdivision and development application is located in an area that is or will, on completion, be subject to either a moderate or low bushfire hazard level, or BAL-29 or below.	The BAL contour assessment (see Figure 5 and Table 3) demonstrates that the project area can achieve BAL-29 or lower.	✓
Element 2: Siting and design	Performance Principle P2 The siting and design of the strategic planning proposal, subdivision or development application, including roads, paths and landscaping, is appropriate to the level of bushfire threat that applies to the site. The proposal incorporates a defendable space and significantly reduces the heat intensities at the building surface thereby minimising the bushfire risk to people, property and infrastructure, including compliance with AS 3959 if appropriate.	A2.1 Asset Protection Zone Every habitable building is surrounded by, and every proposed lot can achieve, an APZ depicted on submitted plans, which meets the requirements set out in Schedule 1.	The BAL contour assessment has identified that all proposed lots will be located in areas of BAL-29 or lower without the need for any formal APZs. Any low threat landscaping will be established and maintained in accordance with Schedule 1 of the Guidelines (Appendix B).	✓
Element 3: Vehicular access	Performance Principle P3i The design and capacity of vehicular access and egress is to provide for the community to evacuate to a suitable destination before a bushfire arrives at the site, allowing emergency services personnel to attend the site and/or hazard vegetation.	A3.1 Public roads <i>The minimum requirements under this acceptable solution are applicable to all proposed and existing public roads.</i> Public roads are to meet the minimum technical requirements in Table 6, Column 1. The trafficable (carriageway/pavement) width is to be in accordance with the relevant class of road in the Local Government Guidelines for Subdivisional Development (IPWEA Subdivision Guidelines), Liveable Neighbourhoods, Austroad standards and/or any applicable standards for the local government area.	All public roads will be constructed to the minimum technical requirements of the Guidelines (see A3.1 and Appendix C) and in accordance with relevant federal, State and local government requirements.	✓
		A3.2a Multiple access routes Public road access is to be provided in two different directions to at least two different suitable destinations with an all-weather surface (two-way access). If the public road access to the subject site is via a no-through road which cannot be avoided due to demonstrated site constraints, the road access is to be a maximum of 200 metres from the subject lot(s) boundary to an intersection where two-way access is provided. The no-through road may exceed 200 metres if it is demonstrated that an alternative access, including an emergency access way, cannot be provided due to site constraints and the following requirements are met: - the no-through road travels towards a suitable destination; and - the balance of the no-through road, that is greater than 200 metres from the subject site, is wholly within BAL-LOW, or is within a residential built-out area – Figure 23.	Multiple connections with the surrounding public road network will be provided on completion of development, including: - Wattleup Road to the south - Vivaldi Street to the west - Whadjuk Drive to the north - a future road to the east. On this basis, compliance with acceptable solution A3.2a is readily achievable. Provision of two access routes will also be a consideration for any staged development.	✓
		A3.2b Emergency access way	The proposed development design complies with Acceptable Solution A3.2a by providing access in two different directions to at least two different	N/A

Bushfire protection criteria	Performance Principle	Method of compliance	Statement of development compliance	Compliance achieved
		Acceptable solutions		
		Where it is demonstrated that A3.2a cannot be achieved due to site constraints, or where an alternative design option does not exist, an emergency access way can be considered as an acceptable solution. An emergency access way is to meet all the following requirements: - requirements in Table 6, Column 2; - provides a through connection to a public road; - be no more than 500 metres in length; and - must be signposted and if gated, gates must open the whole trafficable width and remain unlocked.	suitable destinations, as discussed above. Emergency Access Ways (EAWs) are not required to provide through access to a public road.	
		A3.3 Through-roads All public roads should be through-roads. No-through roads should be avoided and should only be considered as an acceptable solution where: - it is demonstrated that no alternative road layout exists due to site constraints; and - the no-through road is a maximum length of 200 metres to an intersection providing two-way access, unless it satisfies the exemption provisions in A3.2a of this table. A no-through road is to meet all the following requirements: - requirements of a public road (Table 6, Column 1); and - turn-around area as shown in Figure 24.	All proposed roads are through-roads.	✓
	Performance Principle P3ii The design of vehicular access and egress provides: - access and egress for emergency service vehicles while allowing the community to evacuate; - a defensible space for emergency services personnel on the interface - between classified vegetation and development site; and - hazard separation between classified vegetation and the subject site to reduce the potential radiant heat that may impact a lot(s).	A3.4a Perimeter roads A perimeter road is a public road and should be provided for greenfield or infill development where 10 or more lots are being proposed (including as part of a staged subdivision) with the aim of: - separating areas of classified vegetation under AS3959, which adjoin the subject site, from the proposed lot(s); and - removing the need for battle-axe lots that back onto areas of classified vegetation. A perimeter road is to meet the requirements contained in Table 6, Column 1. A perimeter road may not be required where: - the adjoining classified vegetation is Class G Grassland; - lots are zoned for rural living or equivalent; - it is demonstrated that it cannot be provided due to site constraints; or - all lots have frontage to an existing public road.	Perimeter roads have been provided at the permanent external development interfaces to provide separation between adjoining vegetation hazards and a defensible space for firefighting activities.	✓
	Performance Principle P3iii Vehicular access is provided which allows: - access and egress for emergency service vehicles; - defensible space for emergency services - personnel on the interface between classified vegetation and development; and - hazard separation between classified vegetation and the site to reduce the potential radiant heat that may impact a lot(s).	A3.4b Fire service access route Where proposed lots adjoin classified vegetation under AS3959, and a perimeter road is not required in accordance with A3.4a, a fire service access route can be considered as an acceptable solution to provide firefighter access, where access is not available, to the classified vegetation. A fire service access route is to meet all the following requirements: - requirements in Table 6, Column 3; - be through-routes with no dead-ends; - linked to the internal road system at regular intervals, every 500 metres;	As discussed under A3.4a, the development design includes perimeter roads at all permanent external boundaries of the development area; therefore, fire service access routes are not required.	N/A

Bushfire protection criteria	Performance Principle	Method of compliance	Statement of development compliance	Compliance achieved
		Acceptable solutions		
		- must be signposted; - no further than 500 metres from a public road; - if gated, gates must open the required horizontal clearance and can be locked by the local government and/or emergency services, if keys are provided for each gate; and - turn-around areas designed to accommodate type 3.4 fire appliances and to enable them to turn around safely every 500 metres.		
	Performance Principle P3iv Vehicular access is provided which allows emergency service vehicles to directly access all habitable buildings and water supplies and exit the lot without entrapment.	A3.5 Battle-axe access legs <i>Where it is demonstrated that a battle-axe cannot be avoided due to site constraints, it can be considered as an acceptable solution.</i> There are no battle-axe technical requirements where the point the battle-axe access leg joins the effective area of the lot, is less than 50 metres from a public road in a reticulated area. In circumstances where the above condition is not met, or the battle-axe is in a non-reticulated water area, the battle-axe is to meet all the following requirements: - requirements in Table 6, Column 4; and - passing bays every 200 metres with a minimum length of 20 metres and a minimum additional trafficable width of two metres (i.e. the combined trafficable width of the passing bay and constructed private driveway to be a minimum six metres).	No battle-axe lots are proposed as part of the development and the project area is not serviced by an existing battle-axe.	N/A
		A3.6 Private driveways There are no private driveway technical requirements where the private driveway is: - within a lot serviced by reticulated water; - no greater than 70 metres in length between the most distant external part of the development site and the public road measured as a hose lay; and - accessed by a public road where the road speed limit is not greater than 70 km/h. In circumstances where all of the above conditions are not met, or the private driveway is in a non-reticulated water area, the private driveway is to meet all the following requirements: - requirements in Table 6, Column 4; - passing bays every 200 metres with a minimum length of 20 metres and a minimum - additional trafficable width of two metres (i.e. the combined trafficable width of the passing bay and constructed private driveway to be a minimum six metres); and - turn-around area as shown in Figure 28 and within 30 metres of the habitable building.	The proposed development is located within a reticulated area where roads speeds will be lower than 70 km/hr and proposed lots are of size where all future habitable development will be located within 70 m of a public road. In this regard, there are no private driveway compliance requirements for future landowners of the subdivided lots.	N/A
Element 4: Water	No performance principle applies	A4.1 Identification of future water supply Evidence that a reticulated or sufficient non-reticulated water supply for bushfire fighting can be provided at the subdivision and/or development application stage, in accordance with the specifications of the relevant water supply authority or the requirements of Schedule 2.	The proposed development will be connected to reticulated water supply via extension of services from adjacent residential development in accordance with Water Corporations Design Standard 63 requirements. Existing water hydrants are located at 200 m intervals along the public road network surrounding the project area as shown in Figure 5.	✓

Bushfire protection criteria	Performance Principle	Method of compliance	Statement of development compliance	Compliance achieved
		Acceptable solutions		
		Where the provision of a strategic water tank(s) is required a suitable area within a road reserve or a dedicated lot the location should be identified, should be identified on the structure plan, to the satisfaction of the local government.		
	Performance Principle P4 Provide a permanent water supply that is: • sufficient and available for firefighting purposes; • constructed from non-combustible materials (e.g. steel), or able to maintain its integrity throughout a bushfire; and • accessible, with legal access for maintenance and re-filling by tankers and emergency service vehicles.	A4.2 Provision of water for firefighting purposes Where a reticulated water supply is existing or proposed, hydrant connection(s) should be provided in accordance with the specifications of the relevant water supply authority. Where these specifications cannot be met, then the following applies: • The provision of a water tank(s), in accordance with the requirements of Schedule 2; and • Where the provision of a strategic water tank(s) is applicable, then the following requirements apply: – land to be ceded free of cost to the local government for the placement of the tank(s); – the lot or road reserve where the tank is to be located is identified on the plan of subdivision; – tank capacity, construction, and fittings, provided in accordance with the requirements of Schedule 2; and – a strategic water tank is to be located no more than 10 minutes from the subject site (at legal road speeds). Where a subdivision includes an existing habitable building(s) that is to be retained, a water supply should be provided to this existing habitable building(s), in accordance with the requirements listed above.	A4.2 is not applicable to the strategic planning stage.	N/A

5.2 Compliance with Element 5

Element 5 relates specifically to vulnerable tourism land uses and is therefore not applicable to the proposed Structure Plan amendment.

6. Responsibilities for implementation and management of the bushfire measures

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

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

- lot layout, including lots for habitable development, road alignments and any public open space (POS) and drainage areas
- landscape plans for any proposed POS and drainage areas, consistent with the low threat provisions of this BMP
- updated assessment of post development classified vegetation extent and effective slope (if required)
- updated BAL contour map (if required) demonstrating that proposed development areas will achieve BAL-29 or lower
- width and alignment of compliant APZs/setbacks (if applicable)
- confirmation of how bushfire management will be addressed during development staging
- proposed approach to low threat maintenance or vegetation classification in response to on-site POS
- confirmation of vehicular access provisions, including demonstration that a minimum of two access routes will be achieved for each stage of development in accordance with Acceptable Solution A3.1
- water supply provisions with regards to reticulated water
- provisions for notification on Title for any future lots with a rating of BAL-12.5 or greater as a condition of subdivision
- compliance requirements with the current City's annual firebreak notice as amended
- requirements for BMP compliance reporting as a condition of subdivision
- clear demonstration of compliance with acceptable solutions or performance principles of the bushfire protection criteria of the Guidelines
- implementation and audit program outlining all measures requiring implementation and the appropriate timing and responsibilities for implementation of works.

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

7. References

- Department of Fire and Emergency Services (DFES) 2021, *Map of Bush Fire Prone Areas*, [Online], Government of Western Australia, available from: <https://maps.slip.wa.gov.au/landgate/bushfireprone/>, [26/05/2022].
- Department of Planning (DoP) 2016, *Visual guide for bushfire risk assessment in Western Australia*, Department of Planning, Perth.
- Hames Sharley 2022, *Masterplan Diagram - Hammond Park Neighbourhood Centre*, plan prepared for Aigle Royal Properties, April 2022.
- Rowe Group 2022, *Local Structure Plan Lots 114, 123–125 Wattleup Road Hammond Park*, plan prepared for Aigle Royal Properties, April 2022.
- 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) 2021, *Guidelines for Planning in Bushfire Prone Areas, Version 1.4 August 2021*, 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

Plot number		Plot 1
Vegetation classification	Pre-development	Class D Scrub
	Post-development	Class D Scrub
Description / justification		Combination of existing and revegetated Banksia scrub vegetation 2–6 m in height.

Plot 2		
 Photo ID: 2a		 Photo ID: 2b
 Photo ID: 2c		 Photo ID: 2d
Plot number		Plot 2
Vegetation classification	Pre-development	Class D Scrub
	Post-development	Class D Scrub
Description / justification		Intact Banksia scrub vegetation 2–6 m in height.



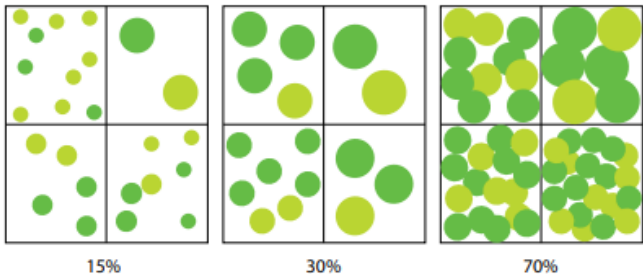
Photo ID: 3a

Plot number		Plot 3
Vegetation classification	Pre-development	Class G Grassland
	Post-development	Class G Grassland
Description / justification		Cleared undeveloped land with no enforceable mechanism for ongoing grassland management.

Plot 4		
 Photo ID: 4a		 Photo ID: 4b
Plot number		Plot 4
Vegetation classification	Pre-development	Class G Grassland
	Post-development	Class G Grassland
Description / justification		Unmanaged grassland greater than 100 mm in height, or cleared undeveloped land with no enforceable mechanism for ongoing grassland management.

Plot 5		
 Photo ID: 5a		
 Photo ID: 5b		
 Photo ID: 5c		
 Photo ID: 5d		
 Photo ID: 5e		
Plot number		Plot 5
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		Existing non-vegetated land (i.e. infrastructure, roads, footpaths, etc) and low threat managed vegetation (i.e. managed street verges/streetscaping, cleared vacant residential lots, managed gardens, turf, active POS, firebreaks, etc)

Appendix B APZ standards (Schedule 1 of the Guidelines)

Schedule 1: Standards for Asset Protection Zones	
Object	Requirement
Fences within the APZ	Should be constructed from non-combustible materials (for example, iron, brick, limestone, metal post and wire, or bushfire-resisting timber referenced in Appendix F of AS 3959).
Fine fuel load (Combustible, dead vegetation matter <6 millimetres in thickness)	- Should be managed and removed on a regular basis to maintain a low threat state. - Should be maintained at <2 tonnes per hectare (on average). - Mulches should be non-combustible such as stone, gravel or crushed mineral earth or wood mulch >6 millimetres in thickness.
Trees* (>6 metres in height)	- Trunks at maturity should be a minimum distance of six metres from all elevations of the building. - Branches at maturity should not touch or overhang a building or powerline. - Lower branches and loose bark should be removed to a height of two metres above the ground and/or surface vegetation. - Canopy cover within the APZ should be <15 per cent of the total APZ area. - Tree canopies at maturity should be at least five metres apart to avoid forming a continuous canopy. Stands of existing mature trees with interlocking canopies may be treated as an individual canopy provided that the total canopy cover within the APZ will not exceed 15 per cent and are not connected to the tree canopy outside the APZ. Figure 19: Tree canopy cover – ranging from 15 to 70 per cent at maturity 
Shrub* and scrub* (0.5 metres to six metres in height). Shrub and scrub >6 metres in height are to be treated as trees.	- Should not be located under trees or within three metres of buildings. - Should not be planted in clumps >5 square metres in area. - Clumps should be separated from each other and any exposed window or door by at least 10 metres.
Ground covers* (<0.5 metres in height. Ground covers >0.5 metres in height are to be treated as shrubs)	- Can be planted under trees but must be maintained to remove dead plant material, as prescribed in 'Fine fuel load' above. - Can be located within two metres of a structure, but three metres from windows or doors if >100 millimetres in height.
Grass	- Grass should be maintained at a height of 100 millimetres or less, at all times. - Wherever possible, perennial grasses should be used and well-hydrated with regular application of wetting agents and efficient irrigation.

Schedule 1: Standards for Asset Protection Zones	
Defendable space	Within three metres of each wall or supporting post of a habitable building, the area is kept free from vegetation, but can include ground covers, grass and non-combustible mulches as prescribed above.
LP Gas Cylinders	- Should be located on the side of a building furthest from the likely direction of a bushfire or on the side of a building where surrounding classified vegetation is upslope, at least one metre from vulnerable parts of a building. - The pressure relief valve should point away from the house. - No flammable material within six metres from the front of the valve. - Must sit on a firm, level and non-combustible base and be secured to a solid structure.

Source: *Guidelines for Planning in Bushfire Prone Areas (WAPC 2021)*

Element 2 Explanatory Notes
E2 Landscaping and design of an Asset Protection Zone
Landscaping, design, and maintenance of an APZ in a bushfire prone area can significantly improve the bushfire resilience of a building. An APZ should not be seen as an area entirely cleared of vegetation, but as a strategically designed space that gives holistic consideration to how existing or proposed vegetation or non-combustible features interact with, or affect the building's bushfire resilience. A well designed APZ provides a greater level of vegetation management within the first few metres of a building with, for example, less vegetation or inclusion of non-combustible materials. The vegetation within the remainder of an APZ can increase further away from the building with carefully considered plant selection and landscaping techniques. Strategic landscaping measures can be applied, such as replacing weeds with low flammability vegetation (refer to E2 Plant Flammability) to create horizontal and vertical separations between the retained vegetation. The accumulation of fine fuel load from different plants is an important consideration for ongoing maintenance in accordance with Schedule 1. For example, when planting ground covers under deciduous trees within an APZ, the total fine fuel load prescribed in Schedule 1 will include any dead plant material from ground covers and leaf litter from the trees. Plant density and final structure and form of mature vegetation should be considered in the initial landscaping stages. For example, clumps of sapling shrubs planted at a density without consideration of future growth, may increase the bushfire risk as a clump will quickly grow to exceed 5m². It should be noted that in some cases, a single shrub in a mature state may be so dense as to fill a 5m² clump alone. The location of plants within an APZ is a key design technique. Separation of garden beds with areas of low fuel or non-combustible material, will break up fuel continuity and reduce the likelihood of a bushfire running through an APZ and subjecting a dwelling to radiant heat or direct flame contact. It is important to note, where mature trees are separated from a building by six metres, but the canopy has grown to extend or overhang a building, maintenance and pruning to remove the overhanging branches should be undertaken without the entirety of the tree being removed. Mulches used within the APZ should be non-combustible. The use of stone, gravel, rock and crushed mineral earth is encouraged. Wood mulch >6mm in thickness may be used, however it is recommended that it is used in garden beds or areas where the moisture level is higher by regular irrigation. These materials could be sourced from non-toxic construction and demolition waste giving the added benefit of reducing the environmental impact of any 'hard landscaping' actions. Combustible objects, plants, garden supplies such as mulches, fences made from combustible material, should be avoided within 10 metres of a building. Vines or climbing plants on pergolas, posts or beams, should be located away from vulnerable parts of the building, such as windows and doors. Non-flammable features can be used to provide hazard separation from classified vegetation, such as tennis courts, pools, lawns and driveways or paths that use inorganic mulches (gravel or crushed rock). Consider locating firewood stacks away from trees and habitable buildings. Incorporation of landscaping features, such as masonry feature walls can provide habitable buildings with barriers to wind, radiant heat and embers. These features can include noise walls or wind breaks. Use of Appendix F of AS 3959 for bushfire resistant timber selection within areas of 29kW/m² (BAL-29) or below, or the use of non-combustible fencing materials such as iron, brick, limestone, metal post and wire is encouraged.

Element 2 Explanatory Notes

In addition to regular maintenance of an APZ, further bushfire protection can be provided at any time by:

- ensuring gutters are free from vegetation;
- installing gutter guards or plugs;
- regular cleaning of underfloor spaces, or enclosing them to prevent gaps;
- trimming and removing dead plants or leaf litter;
- pruning climbing vegetation (such as vines) on a trellis, to ensure it does not connect to a building, particularly near windows and doors;
- removing vegetation in close proximity to a water tank to ensure it is not touching the sides of a tank; and/or
- following the requirements of the relevant local government section 33 fire break notice, which may include additional provisions such as locating wood piles more than 10 metres from a building.

Preparation of a property prior to the bushfire season and/or in anticipation of a bushfire is beneficial even if your plan is to evacuate. As embers can travel up to several kilometres from a bushfire and fall into small spaces and crevices or land against the external walls of a building, best practice recommends that objects within the APZ are moved away from the building prior to any bushfire event. Objects may include, but are not limited to:

- door mats;
- outdoor furniture;
- potted plants;
- shade sails or umbrellas;
- plastic garbage bins;
- firewood stacks;
- flammable sculptures; and/or
- playground equipment and children's toys.

E2 Plant flammability

There are certain plant characteristics that are known to influence flammability, such as moisture or oil content and the presence and type of bark. Plants with lower flammability properties may still burn during a bushfire event, but may be more resistant to burning and some may regenerate faster post-bushfire.

There are many terms for plant flammability that should not be confused, including:

- Fire resistant – plant species that survive being burnt and will regrow after a bushfire and therefore may be highly flammable and inappropriate for a garden in areas of high bushfire risk.
- Fire retardant – plants that may not burn readily or may slow the passage of a bushfire.
- Fire wise – plants that have been identified and selected based on their flammability properties and linked to maintenance advice and planting location within a garden.

Although not a requirement of these Guidelines, local governments may develop their own list of fire wise or fire retardant plant species that suit the environmental characteristics of an area. When developing a recommended plant species list, local governments should consult with ecologists, land care officers or environmental authorities to ensure the plants do not present a risk to endangered ecological communities, threatened, or endangered species or their habitat.

When selecting plants, private landholders and developers should aim for plants within the APZ that have the following characteristics:

- grow in a predicted structure, shape and height;
- are open and loose branching with leaves that are thinly spread;
- have a coarse texture and low surface-area-to-volume ratio;
- will not drop large amounts of leaves or limbs, that require regular maintenance;
- have wide, flat, and thick or succulent leaves;
- trees that have bark attached tightly to their trunk or have smooth bark;
- have low amounts of oils, waxes, and resins (which will often have a strong scent when crushed);
- do not produce or hold large amounts of fine dead material in their crowns; and/or
- will not become a weed in the area.

Element 2 Explanatory Notes

Refer to the WAPC Bushfire and Vegetation Fact Sheet for further information on clearing and vegetation management and APZ landscaping, design and plant selection reference material.

Source: *Guidelines for Planning in Bushfire Prone Areas (WAPC 2021)*

Appendix C Vehicular access technical standards of the Guidelines

Acceptable Solution A3.1 – Public Roads

Explanatory Note E3.1

These Guidelines do not prescribe values for the trafficable (carriageway/pavement) width of public roads as they should be in accordance with the class of road as specified in the IPWEA Subdivision Guidelines, Liveable Neighbourhoods, Austroad Standards and/or any applicable standard in the local government area.

The IPWEA Subdivision Guidelines, Liveable Neighbourhoods, Austroad Standards do not prescribe a horizontal clearance. However, it is recommended that a traversable verge is provided to allow for emergency services vehicles to stop and operate on the side of the public road, specifically where the public road may traverse large areas of classified vegetation.

Where local government roads are proposed to be widened by the proponent, they must obtain approval from the local government.

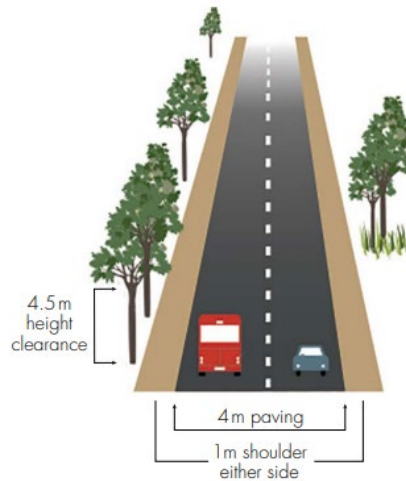


Figure 20: Example of a public road

Source: Guidelines for Planning in Bushfire Prone Areas (WAPC 2021)

Acceptable Solution A3.2a – Multiple access routes

Explanatory Note E3.2a

Two-way public road access is public road access from a lot in at least two different directions to two suitable destinations, and provides residents and the community, as well as emergency services, with access and egress from both the subdivision and individual habitable buildings/development in the event of a bushfire emergency. A single road provides no alternative route if the access becomes congested or is unable to be traversed due to smoke and/or fallen trees during a bushfire.

Two-way public road access applies to access/egress routes leading into a subdivision, as well as those within a subdivision. A road that loops back onto itself does not constitute the option of two different directions.

Two-way public road access should always be the first option. Where the site is not able to achieve two-way access within 200 metres of the lot boundary, due to demonstrated site or environmental constraints, the proponent should identify options for an emergency access way from the subject site to a suitable destination. Where an emergency access way cannot be provided, the proponent should demonstrate compliance with the performance principle.

Subject sites or proposed lots greater than 200 metres from an intersection, which provides two-way access, do not satisfy the requirement for two-way access unless they meet the provisions which allow for no-through roads greater than 200 metres in A3.2a.

To demonstrate compliance with the performance principle for two-way access, the bushfire planning practitioner may have regard to:

- the extent of the bushfire hazard, location and vegetation classification, the likelihood, potential severity and impact of bushfire to the subject site and the road network;
- time between fire detection and the onset of conditions in comparison to travel time for the community to evacuate to a suitable destination;
- available access route(s) travelling towards a suitable destination; and
- turn-around area for a fire appliance for no-through roads.

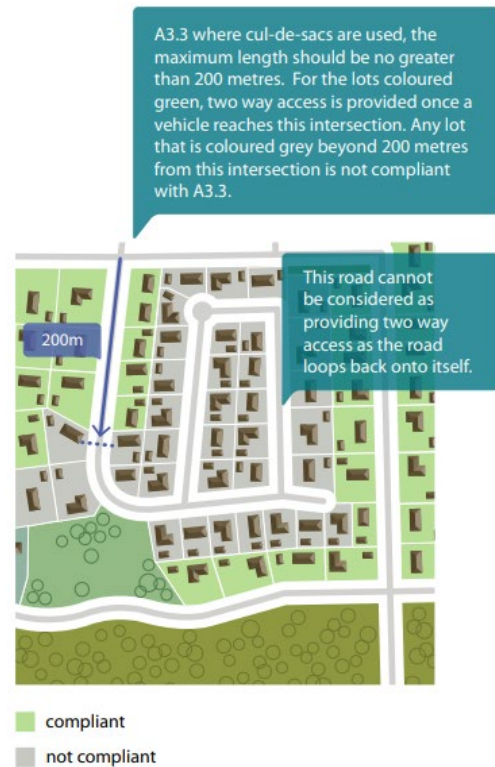


Figure 21: Example of compliant and non-compliant two-way

Source: *Guidelines for Planning in Bushfire Prone Areas* (WAPC 2021)

Technical requirement	1	2	3	4
	Public road	Emergency access way ¹	Fire service access route ¹	Battle-axe and private driveways ²
Minimum trafficable surface (m)	In accordance with A3.1	6	6	4
Minimum horizontal clearance (m)	N/A	6	6	6
Minimum vertical clearance (m)	4.5	4.5	4.5	4.5
Minimum weight capacity (t)	15	15	15	15
Maximum grade unsealed road ³	As outlined in the IPWEA Subdivision Guidelines	1:10 (10%, 6°)	1:10 (10%, 6°)	1:10 (10%, 6°)
Maximum grade sealed road ³		1:7 (14.3%, 8°)	1:7 (14.3%, 8°)	1:7 (14.3%, 8°)
Maximum average grade sealed road		1:10 (10%, 6°)	1:10 (10%, 6°)	1:10 (10%, 6°)
Minimum inner radius of road curves (m)		8.5	8.5	8.5

¹ To have crossfalls between 3 and 6%

² Where driveways and battle-axe legs are not required to comply with the widths in A3.5 or A3.6, they are to comply with the Residential Design Codes and Development Control Policy 2.2 Residential Subdivision

³ Dips must have no more than a 1 in 8 (12.5% -7.1 degree) entry and exit angle.

City of Cockburn Fire Control Order - Effective from 10 May 2018

First and Final Notice

Pursuant to *Section 33* of the *Bush Fires Act 1954* owners or occupiers of land situated within the City of Cockburn are required by law to comply with the prescribed Fire Control Order here within.

1. All Property (vacant or developed) - less than 4,047m²

To reduce the fire hazard on your land and to comply with the requirements of this Fire Control Order you are required to:

1.1 Have all flammable materials such as dry grass and weeds slashed, mown or trimmed down by other means to a maximum height of 50mm across the entire property for the duration of this firebreak time; and

1.2 Remove all dead vegetation.

2. All property (vacant or developed) - 4,047m² or greater

To reduce the fire hazard on your land and to comply with the requirements of this Fire Control Order you are required to:

2.1 Construct a firebreak (as defined within section 3 of this order) immediately inside all external property boundaries, this includes those adjacent to roads, drains, rail reserves and any public open space reserves

2.2 Remove all dead vegetation surrounding and over all habitable structures to a radius of 3 metres except living trees, shrubs, maintained grass and gardens under cultivation.

3. Firebreak Specifications

A firebreak is an area of land cleared of flammable material, installed to minimise the spread or extension of a fire and to provide suitable access for fire fighting vehicles. The standards of a compliant firebreak are as follows:

3.1 A firebreak must be constructed of bare earth, stone, or sealed surfaces and be clear of all flammable materials to create a 3 metre wide trafficable surface

3.2 Maintained grass may occupy a firebreak

3.3 Overhanging branches must be pruned to provide a 4 metre vertical clearance above the full width of the 3 metre firebreak surface

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Document Status

Report version	Rev No.	Purpose	Author	Reviewed and Approved for Issue	
				Name	Date
Draft Report	Rev A	For review by client	Kaitlin Southgate	Zac Cockerill (BPAD 37803, Level 2)	17 November 2020
Final Report	Rev 0	Issued for use: to accompany Structure Plan Amendment	Zac Cockerill (BPAD 37803, Level 2)	Zac Cockerill (BPAD 37803, Level 2)	9 February 2021
Final Report	Rev 1	Issued for use: updated to address revised Structure Plan amendment	Jasmin Culverwell	Zac Cockerill (BPAD 37803, Level 2)	1 June 2022

