Bushfire Management Plan / Statement addressing the Bushfire Protection Criteria coversheet

Site address: Lot 4 (#52) Lawrence Way, Byford

Site visit: Yes ☒ No ☐

Date of site visit (if applicable): Day 1 Month OCT Year 2025

Report author or reviewer: Nathan Peart

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: 38808 Accreditation expiry: Month May Year 2026

Bushfire management plan version number: 2

Bushfire management plan date: Day 27 Month OCT Year 2025

If one or more of the following are selected, then these should be automatically referred to DFES.	YES	NO
Strategic planning is required to address SPP 3.7 and the Guidelines	☐	☒
The application is a vulnerable land use	☐	☒

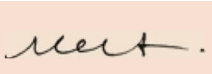
None of the Above ☒

If one or more of the following are selected, and the decision-maker requires input from DFES, then the application can be referred.	YES	NO
The BAL rating has been calculated by a method other than Method 1 as prescribed by AS 3959	☐	☐
An outcomes-based approach has been submitted to demonstrate compliance with the bushfire protection criteria	☐	☐

None of the Above ☒

Note: If a subdivision or development application meets all the acceptable solutions and does not otherwise trigger a referral as listed above, seeking advice from DFES on SPP 3.7 or other matters is at the discretion of the decision-maker.

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 27 October 2025



Bushfire Management Plan

Proposed Subdivision at: Lot 4 (#52) Lawrence Way, Byford

Client: Warren Robinson

Report Number: 24-22601

Assessment Date: 1 October 2025

Report Date: 27 October 2025

Prepared by a BPAD Accredited Practitioner

BUSHFIRE SMART

Document Control

Doc name:	Bushfire Management Plan (DA) - Lot 4 (#52) Lawrence Way, Byford				
Version	Date	Author		Reviewer	
1	14/10/2025	Jess Calcutt	JC	Nathan Peart	NP
	DRAFT Report Issued				
2	27/10/2025	Jess Calcutt	JC	Nathan Peart	NP
	Updates reflect roads and POS advice not previously provided				

Disclaimer and Limitation

This report is prepared exclusively for the client and any future landowners of the subject lot. It is not intended for the benefit of any other person and may not be relied upon by any other party. Bushfire Smart accepts no liability or responsibility for any use or reliance upon this report and its supporting materials by third parties.

The mitigation strategies outlined in this report represent prudent minimum standards based on the writer's experience and the standards prescribed by relevant authorities. It is expressly stated that Bushfire Smart and the writer do not guarantee that compliance with these standards or the exercise of prudence by a property owner will prevent damage or destruction of a building or property by bushfire, or the loss of lives in a bushfire. Fire is an extremely unpredictable force of nature, and changing climatic factors, whether predictable or otherwise, can significantly affect the nature of a fire. In a bushfire-prone area, it is not possible to completely guard against bushfire.

Furthermore, the growth, planting, or removal of vegetation; poor maintenance of fire prevention measures; addition of structures not included in this report; or other activities can and will alter the bushfire threat to all properties detailed in the report. The achievement of the level of implementation of fire precautions will depend on the actions of the landowner or occupiers of the land, over which Bushfire Smart has no control.

This report does not negate the need to follow Local government authority requirements for Firebreak and Fuel Hazard Reduction. The client agrees that in submitting this report they approve of and will comply with all requirements detailed.

Insurance Coverage Statement

Bushfire Smart is covered by Professional Indemnity Insurance up to $2,000,000 and Public Liability Insurance valued at $20,000,000. These policies provide comprehensive coverage for bushfire attack level assessments, planning, design, and advisory services, in accordance with the FPA Australia Bushfire Planning and Design Accreditation Scheme for a BPAD-Level 3 practitioner.

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Executive Summary

The proposal is at Lot 4 (#52) Lawrence Way, Byford, with this BMP created to support a subdivision application for 60 lots.

The proposal is in an area that has been designated as bushfire prone and must therefore comply with State Planning Policy 3.7 (SPP 3.7). Planning for Bushfire Guidelines (September 2024) has been used to determine the proposals compliance with SPP 3.7.

The proposal is not within an area that has been designated as Native Vegetation by the Department of Primary Industries and Regional Development (DPIRD-005). The subject site has been identified by the Department of Biodiversity, Conservation and Attractions (DBCA) as being within Geomorphic Wetlands, and a Threatened Ecological Communities. Additionally, the site is subject to the clearing regulations for Environmentally Sensitive Areas identified by the Department of Water and Environmental Resources (DWER).

The proposal is located within Bush Fire Prone Area 2, but previously approved structure plans are assumed to supersede the requirement for a Bushfire Level Assessment (BLA) and are therefore considered outside the scope of this report.

Lot(s) 1-18, 21-40, 9001, and 44-59 can achieve a buildable area of BAL—29 or below. Lots 19, 20, 60, 61 require a quarantine period.

Vehicular access compliance is to be maintained through each stage of the development.

An assessment against the Bushfire Protection Criteria 5 is required to be undertaken. The following table summarises the outcome of this assessment.

Table A.1: Summary of assessment against Bushfire Protection Criteria 5

Element	Acceptable Solution	Compliance Method	Compliance notes.
1: Location	A1.1 Development location	Acceptable Solution	Area 2 but not within the scope of this refer to previously approved structure plan.
2: Siting and Design	A2.1 Siting and design	Acceptable Solution	Current condition of neighbouring lots to the west (#109 and #119) results in Lots 19, 20, 60, 61 unable achieve a suitable buildable area of BAL–29 or lower with an APZ or setbacks. See A2.2. All other proposed lots contain a sufficient development site that can achieve a radiant heat impact not exceeding 29 kW/m² (BAL–29).

	A2.2 Asset Protection Zone (APZ)	Acceptable Solution	Current condition of neighboring lot results in Lots 19, 20, 60, 61 unable achieve a suitable BAL–29 or lower buildable area. These lots are to be quarantined until: a) A management agreement can be formalized over neighbouring grassland b) The development of neighbouring lot per approved structure plans. All other lots do not require additional setbacks and are to be maintained to APZ standards, including all grass being maintained at less than 100mm tall, by the developer until sale and then by new owners thereafter. All landscaping within lots and verges to be managed as per Table 9 of the guidelines, extract shown in Appendix B.
	A2.3 Clearing of native vegetation	Acceptable Solution	The proposal does not require the clearing of native vegetation.
3: Vehicular Access	A3.1 Public Roads	Acceptable Solution	Public roads are to meet the minimum technical requirements in Appendix B.3, Table 10.
	A3.2 Access routes	Acceptable Solution	Each stage to have compliant road access. Subsequent stage releases to be determined at time of Stage release as road connection details are subject to change and depend on neighbouring development.
	A3.3a No through-roads	Acceptable Solution	
	A3.3b No through-road requirements	Acceptable Solution	
	A3.4 Emergency access ways	Acceptable Solution	
	A3.5a Perimeter roads	N/A	The adjoining classified vegetation is Class G Grassland.
	A3.5b Fire service access routes	N/A	
	A3.6 Battle axes	N/A	
4: Water	A4.1 Water supply for structure plans	N/A	
	A4.2 Water supply for subdivision applications	Acceptable Solution	New hydrants to be provided that comply with Water Corporation's No. 63 Water Reticulation Standard.
	A4.3 Water supply for existing habitable building(s)	N/A	

Bushfire hazards

The subject site is positioned within a rapidly developing residential area, bordered by recently cleared housing estates to the north and south that provide partial buffering.

To the east, a large tract of grassland presents a moderate grassfire risk due to fine, continuous fuels, with dense forest and scrubland beyond posing a significant bushfire hazard due to its proximity and unbroken canopy.

Additional grassland further to the south and southwest increases the risk of fast-moving surface fires. While some edges of the site benefit from cleared development, the eastern and western boundaries are exposed to vegetated interfaces that elevate the potential for ember attack and potentially flame contact during bushfire events.

Action Required
Compliance with this BMP, and therefore SPP 3.7, will require action before, during and after development. The items requiring implementation include:

- Lots 19, 20, 60 and 61 to be quarantined to the satisfaction of approving authority.
- Prepare and submit a detailed landscaping plan for the proposed Public Open Space (POS) area. The plan is to be reviewed by a qualified bushfire consultant and approved by Council prior to implementation.
- APZ standards to be implemented over all other lots and maintained until sale and then by subsequent owners throughout the life of the proposal.
- Roads to be constructed to the standard stated in this BMP with this BMP to be updated to each staged release to ensure compliance.
- Hydrants to be installed to comply with Water Corporation requirements.
- Notices to be placed on titles.

The entire report should be read in conjunction with the guidelines to ensure all requirements are understood.

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1 Proposal and Site Details

1.1 Proposal Details

The proposal is at Lot 4 (#52) Lawrence Way, Byford. The land is currently vacant and is to be subdivided into 60 residential lots ranging from 323 m² to 967 m². There is also a large area given over to POS (10,023m2 listed as Lot 8001).

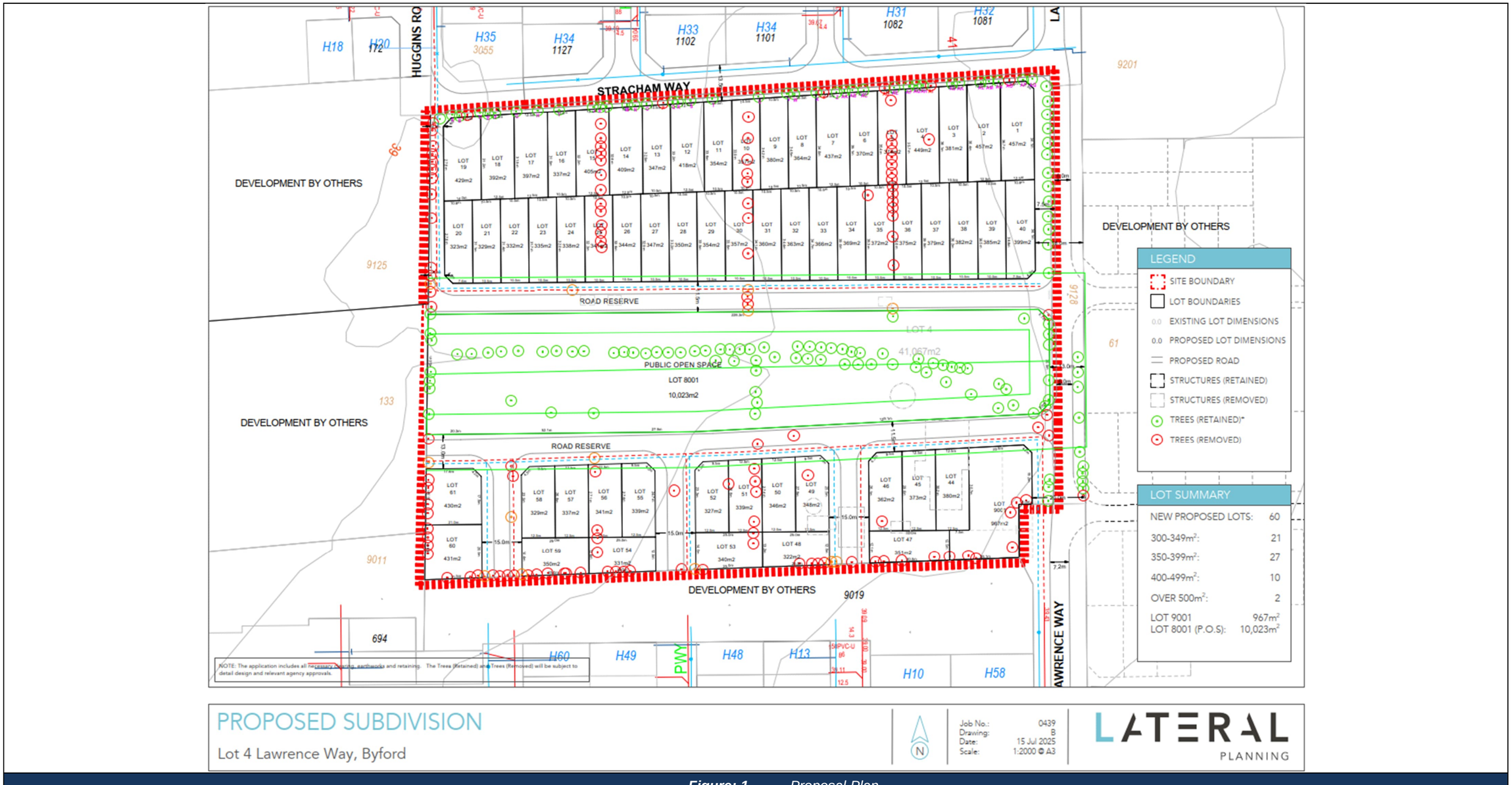


Figure: 1 *Proposal Plan*

1.2 Staging Details

The development will proceed in three stages, enabling construction of the surrounding road network.

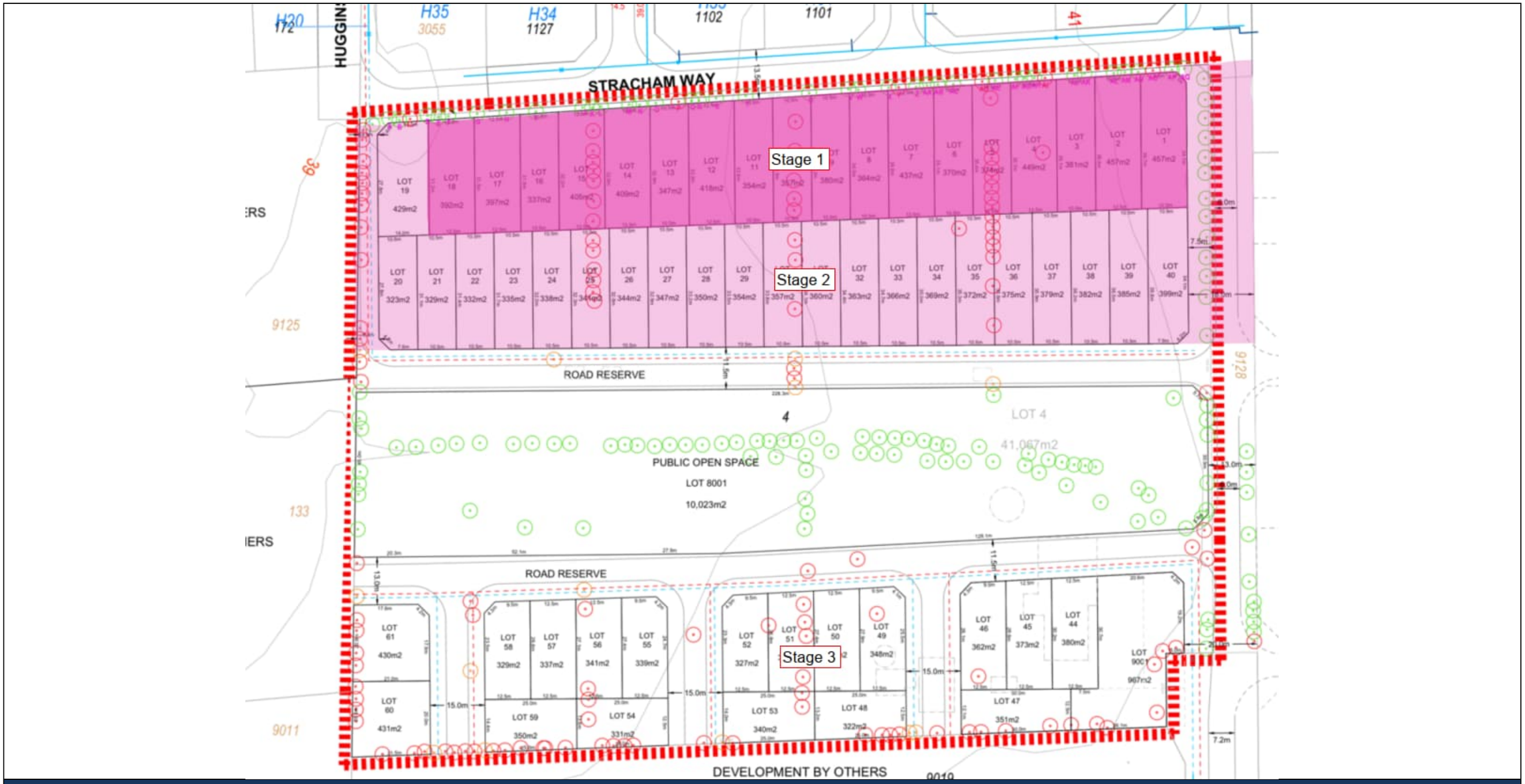


Figure: 2 *Staging*

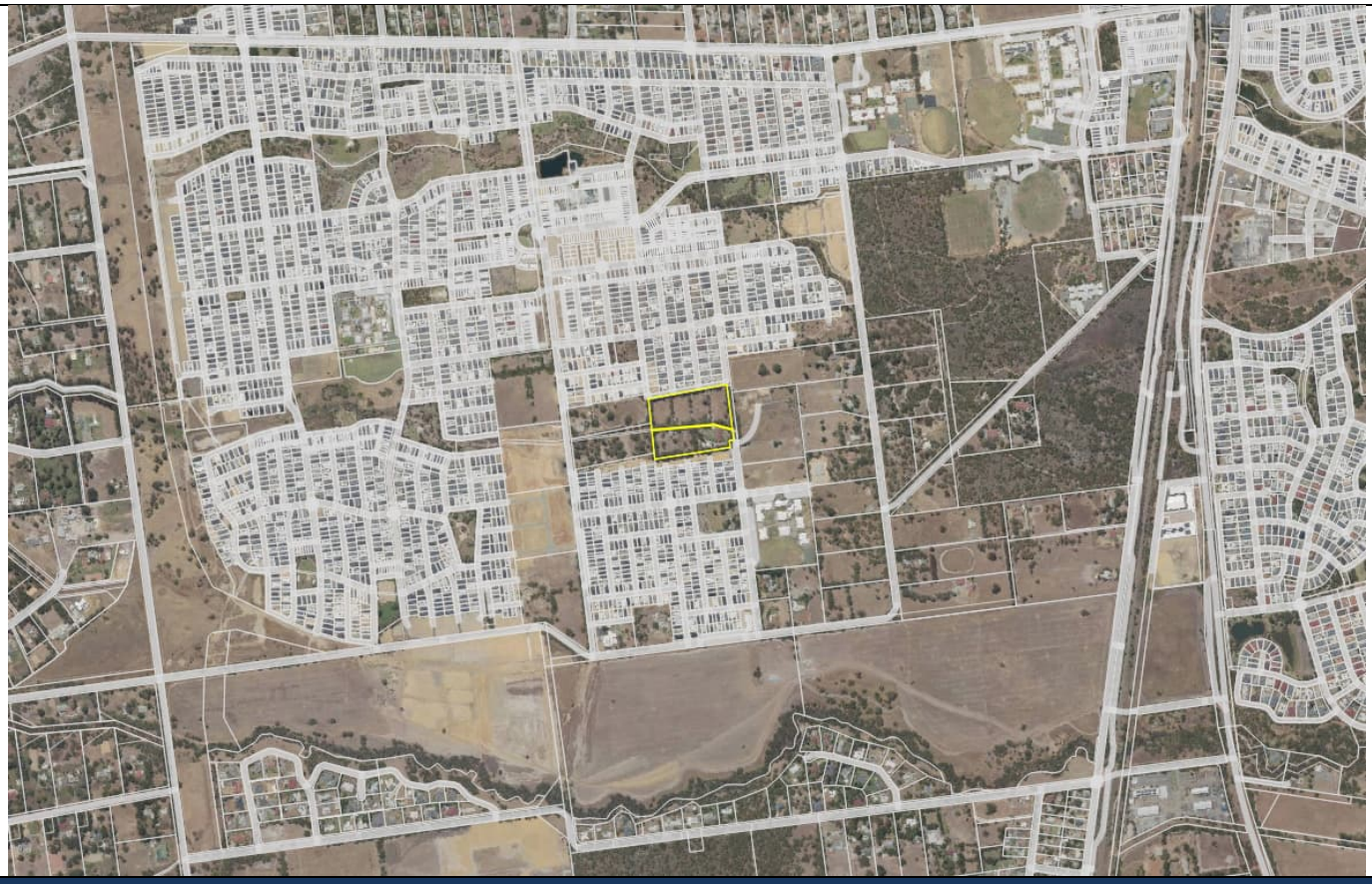


Figure: 3 *Location*



Figure: 4 *Map of Bushfire Prone Area for Subject Site*

2 Environmental Considerations

SPP3.7 objective 5.4 prioritises the retention of native vegetation for biodiversity conservation, environmental protection and landscape amenity. To identify environmental, biodiversity and conservation values of the subject site, the site has been examined against the following databases as shown in Table 1.

Table 1: Assessment against environmental considerations

Object	Database	Identified	Details
Geomorphic Wetlands	DBCA-013 to DBCA-017, DBCA-019, DBCA-043, DBCA-044	Yes	
Ramsar sites (Wetland areas designated under the Ramsar Convention)	DBCA-010	No	Site not identified within database.
Threatened and Priority Flora	DBCA-036	No	Site not identified within database.
Threatened and Priority Fauna	DBCA-037	No	Site not identified within database.
Threatened Ecological Communities	DBCA-038	Yes	
Bush Forever Areas - 2000	DPLH-019	No	Site not identified within database.
Clearing Regulations – Environmentally Sensitive Areas	DWER-046	Yes	
SWAN Bioplan Regionally Significant Natural Areas 2010	DWER-070	No	Site not identified within database.
Local government biodiversity/planning	-	No	-

The subject site has been identified by the Department of Biodiversity, Conservation and Attractions (DBCA) as being within Geomorphic Wetlands, and a Threatened Ecological Communities. Additionally, the site is subject to the clearing regulations for Environmentally Sensitive Areas identified by the Department of Water and Environmental Resources (DWER).

The applicant may need to seek clarification from the appropriate authorities, who may require the preparation of reports from suitably qualified consultants, to ensure any environmental modification is appropriate for the area.

2.1 Native vegetation – modification and clearing

The site has been checked against the Native Vegetation mapping conducted by the Department of Primary Industries and Regional Development (DPIRD-005).

This database does not show native vegetation on the site, as seen in the image below.

Therefore, no clearing of native vegetation is required in this proposal.



Figure: 5 *Map of Native Vegetation Extents for Subject Site*

2.2 Revegetation/landscape plan

No detailed landscaping or revegetation plans relating to this proposal have been provided. However, a portion of the subdivision (centrally located ~10,000m2 area) has been drafted as a Public Open Space.

This is assumed to be a managed area but will require a landscaping plan and formalised management plan in place before development commences. Additionally, selected verge trees are to be retained (see Figure 1). Should this area not be managed, a revision of the vegetation classification will be required.

The plan is to be reviewed by a qualified bushfire consultant and approved by Council prior to implementation at subdivision or Development Application stage.

3 Broader Landscape Assessment

3.1 Broader Landscape Assessment (BLA)

The subdivision is located in Area 2 and typically requires a BLA however, previously approved structure plans are assumed to supersede the requirement for a Bushfire Level Assessment (BLA) and are therefore considered outside the scope of this report.

4 Bushfire Assessment

4.1 Site Assessment

The assessment of this site/development was undertaken by a BPAD Accredited Practitioner for the purpose of determining the Bushfire Attack Level in accordance with AS 3959-2018 Simplified Procedure (Method 1).



Figure: 6 *Vegetation Classification*

Lot 4 (#52) Lawrence Way, Byford	Legend											
The aerial imagery used was the best available at the time of review; however, it may no longer reflect the most current conditions.	Proposed Lot Boundary	Subject Land	150m area assessment	100m area assessment	Photo point	A Forest	B Woodland	C Shrubland	D Scrub	G Grassland	Excluded	Internal strip of vegetation to be preserved as unmanaged vegetation corridor within broader area of planned POS zone. Assumed 7.5m wide maintained area around the perimeter per advice from client.

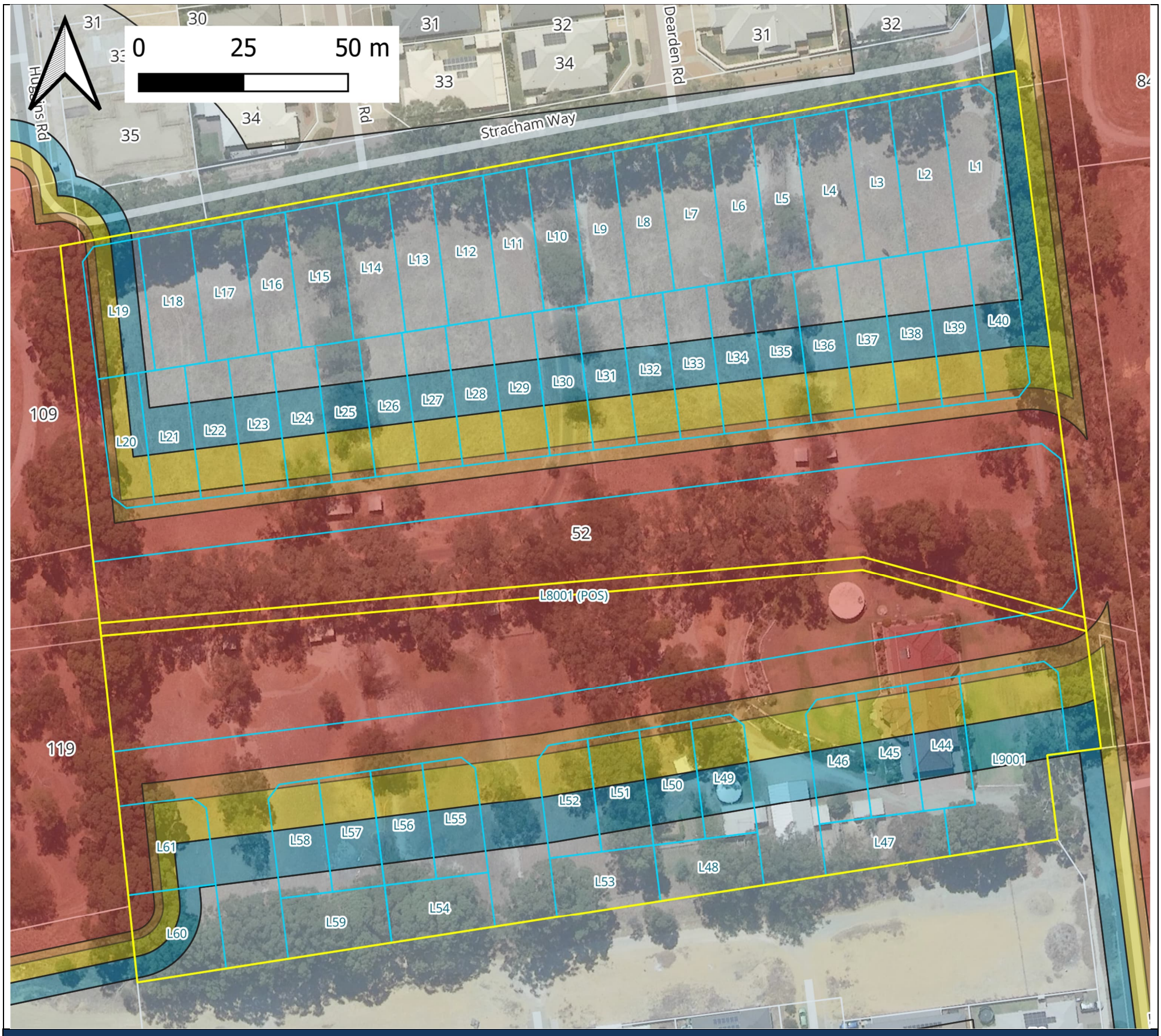


Figure: 7 *BAL Contours (Indicative – Attainable Post Development on Subject Land only)*

Lot 4 (#52) Lawrence Way, Byford	Legend										
The aerial imagery used was the best available at the time of review; however, it may no longer reflect the most current conditions.	Proposed Lot Boundary	Subject Land	150m area assessment	100m area assessment	BAL FZ	BAL 40	BAL 29	BAL 19	BAL 12.5	BAL Low	Comments: BAL contour map does not incorporate assumptions from future structure plans. It reflects only the clearing and development works to be undertaken by the proponents as part of this proposal. Assumed 7.5m wide maintained area around the perimeter of POS per advice from client.

4.1 Vegetation Classification

All vegetation within 150m of the site / proposed development was classified in accordance with Clause 2.2.3 of AS 3959-2018. Each distinguishable vegetation plot with the potential to determine the Bushfire Attack Level is identified below.

Table 2: BAL Analysis

Plot:	1	Effective Slope (°):	Flat/Upslope	Separation Distance (m):	Varies – See Table
Vegetation Classification or Exclusion Clause:			Class G Grassland – Tussock grassland G-22		
Description / Justification for Classification:					
Area of recently cleared land is not reflected in most recent available aerials. Plot is a mix of currently long grasses (likely due to boggy winter weather conditions making maintenance not feasible). Likely to be excludable under normal conditions but classified here as worst case. Contour data indicates slope (-0.61°) not discernible onsite.					
 Photo ID: 1			 Photo ID: 2		
 Photo ID: 3			 Photo ID: 4		

Plot:	2	Effective Slope (°):	Flat/Upslope	Separation Distance (m):	Varies – See Table
Vegetation Classification or Exclusion Clause:			Class B Woodland - Open woodland B-06		
Description / Justification for Classification:					
One small but dense stand of vegetation located within an open field containing sparse trees. Overstorey foliage cover is approximately 15%. Ground layer consists only of grasses. Contour data indicates slope (-0.61°) not discernible onsite.					



Photo ID: 5



Photo ID: 6

Plot:	3	Effective Slope (°):	Flat/Upslope	Separation Distance (m):	Varies – See Table
Vegetation Classification or Exclusion Clause:			Class G Grassland – Sown pasture G-26		
Description / Justification for Classification:					
Open pastures to the east comprise long grasses between 100-400mm, scattered shade trees make up <10% of overstorey foliage cover. Contour data indicates slope (< -1°) not discernible onsite.					



Photo ID: 7



Photo ID: 8



Photo ID: 9



Photo ID: 10

Plot:	4	Effective Slope (°):	N/A	Separation Distance (m):	N/A
Vegetation Classification or Exclusion Clause:			Excludable - 2.2.3.2 (e/f) Non-Vegetated Areas & Low Threat Vegetation		
Description / Justification for Classification:					
Line of trees located on the subject lot and not included in this plot. Wet season growth has produced patchy grasses exceeding 100 mm in height, but these are not connected to any other classifiable vegetation. Dominated by builders sand and other highly disturbed soils.					



Photo ID: 11



Photo ID: 12

Plot:	5	Effective Slope (°):	N/A	Separation Distance (m):	>111.6
Vegetation Classification or Exclusion Clause:			Excludable - 2.2.3.2(a) >100m from site		
Description / Justification for Classification:					
Low shrubland and forest adjacent to POS area. Lies beyond 100m from all proposed lots.					



Photo ID: 13



Photo ID: 14

Plot:	6	Effective Slope (°):	N/A	Separation Distance (m):	N/A
Vegetation Classification or Exclusion Clause:			Excludable - 2.2.3.2 (e/f) Non-Vegetated Areas & Low Threat Vegetation		
Description / Justification for Classification:					
Managed residential area comprising hardstand surfaces, paved driveways, and irrigated lawns consistently maintained to below 100 mm. Overstorey vegetation consists of isolated verge trees with foliage cover <10%, and no midstorey or understorey layers are present. The surrounding land use includes sealed roads, footpaths, and built residential structures, providing effective separation from any unmanaged areas described in this report.					



Photo ID: 15

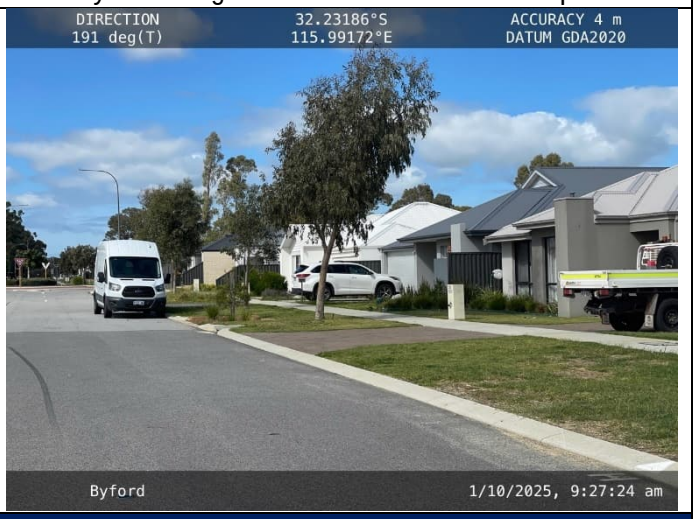


Photo ID: 16



Photo ID: 17



Photo ID: 18

Plot:	7a/b	Effective Slope (°):	Flat/Upslope	Separation Distance (m):	Varies – See Table
Vegetation Classification or Exclusion Clause:			Class A Forest - Open forest A-03		
Description / Justification for Classification:					
7a) Area inaccessible due to wood piles making traversal unsafe. Assessment based on aerial imagery, with worst-case classification assumed from observed vegetation density. Contour data indicates slope (-0.61°) not discernible onsite. 7b) Internal strip of vegetation to be preserved as unmanaged vegetation corridor within broader area of planned POS zone, and is therefore not excluded in this assessment. Assumed 7.5m wide maintained area around the perimeter per advice from client.					

The Fire Danger Index (FDI) – 80 and Table 2.5 AS3959-2018 applied.

Potential Bushfire Impacts

The potential bushfire impact to the site / proposed development from each of the identified vegetation plots are identified below.

Table 3.1: BAL Analysis

Plot	Vegetation Classification	Effective Slope
1	Class G Grassland	Flat/Upslope
2	Class B Woodland	Flat/Upslope
3	Class G Grassland	Flat/Upslope
4	Excludable - 2.2.3.2 (e/f) Non-Vegetated Areas & Low Threat Vegetation	N/A
5	Excludable – Clause 2.2.3.2(a)	N/A
6	Excludable - 2.2.3.2 (e/f) Non-Vegetated Areas & Low Threat Vegetation	N/A
7a/b	Class A - Forest	Flat/Upslope

Table 3.3: BAL Analysis showing Determined and Indicative BAL with APZ requirements

Lot (s)	Plot	Vegetation Classification	Effective Slope	Separation (m)	Highest (Determined) BAL Contour	APZ/Offset Required	Indicative BAL Contour
1-3	3	Class G Grassland	Flat/Upslope	Between 17 and 50 m	BAL – 12.5	-	BAL – 12.5
4-13	3	Class G Grassland	Flat/Upslope	>50 m	BAL – LOW	-	BAL – LOW
14-18	2	Class B Woodland	Flat/Upslope	Between 29 m and 100 m	BAL – 12.5	-	BAL – 12.5
19, 20	1	Class G Grassland	Flat/Upslope	<6 m	BAL – FZ	QUARANTINED*	BAL – FZ
20-40	7b	Class A - Forest	Flat/Upslope	Between 16 and <21	BAL – 40	2m from south boundary	BAL – 29
28-36	1	Class G Grassland	Flat/Upslope	>50 m	BAL – LOW	-	BAL – LOW
37-40	3	Class G Grassland	Flat/Upslope	Between 17 and 50 m	BAL – 12.5	-	BAL – 12.5
44-46, 49-52, 55-58, 61	7b	Class A - Forest	Flat/Upslope	Between 16 and <21	BAL – 40	2m from south boundary	BAL – 29
44	1	Class G Grassland	Flat/Upslope	Between 17 and 50 m	BAL – 12.5	-	BAL – 12.5
45-53	3	Class G Grassland	Flat/Upslope	>50 m	BAL – LOW	-	BAL – LOW
54-59	2	Class B Woodland	Flat/Upslope	Between 29 m and 100 m	BAL – 12.5	-	BAL – 12.5
60, 61	1	Class G Grassland	Flat/Upslope	<6 m	BAL – FZ	QUARANTINED*	BAL – FZ
9001	3	Class G Grassland	Flat/Upslope	Between 17 and 50 m	BAL – 12.5	-	BAL – 12.5

*Quarantined: See A2.2 of this report for details.

5 Bushfire Hazard Issues

The subject site is positioned within a rapidly developing residential area, bordered by recently cleared housing estates to the north and south that provide partial buffering.

To the east, a large tract of grassland presents a moderate grassfire risk due to fine, continuous fuels, with dense forest and scrubland beyond posing a significant bushfire hazard due to its proximity and unbroken canopy.

Additional grassland further to the south and southwest increases the risk of fast-moving surface fires. While some edges of the site benefit from cleared development, the eastern and western boundaries are exposed to vegetated interfaces that elevate the potential for ember attack and potentially flame contact during bushfire events.

6 Assessment against the Bushfire Protection Criteria Five – Structure plans and Subdivisions

An assessment against the bushfire protection criteria is required to be undertaken for any strategic planning proposal or subdivision that has or will, on completion, have a bushfire hazard level above 'Low' or a BAL rating above BAL LOW. The following section outlines the steps required to ensure this proposal meets the necessary compliance standards

Element 1: Location

The proposal is located within Area 2 but was not subject to a BLA, as an approved structure plan already applies. This structure plan is assumed to supersede the requirements of this assessment.

Element 2: Siting and design of development

A.2.1a: Siting and design

Figure 6 (page 35) of the Byford District Structure Plan identifies the subject lot and surrounding lands as approved for urban development. Likewise, the Doley Road Precinct Local Structure Plan (Plan A: Local Structure Plan) designates the subject land and neighbouring areas as Public Open Space (POS) and R25–R40 zoned residential (see excerpts in Appendix D).

In the intervening period, these areas may not be excluded. Therefore, current condition of neighbouring lots to the west (#109 and #119) results in Lots 19, 20, 60, 61 unable achieve a suitable buildable area of BAL–29 or lower with an APZ or setbacks.

All other proposed lots contain a sufficient development site that can achieve a radiant heat impact not exceeding 29 kW/m² (BAL–29).

A2.2 Asset Protection Zone (APZ)

Current condition of neighbouring lots to the west (#109 and #119) results in Lots 19, 20, 60, 61 unable achieve a suitable buildable area of BAL–29 or lower with an APZ or setbacks. These lots are to be quarantined until:

a) a management agreement can be formalised over neighbouring grassland; or

b) the development of neighbouring lot per approved structure plans.

All other lots do not require additional setbacks and are to be maintained to APZ standards, including all grass being maintained at less than 100mm tall, by the developer until sale and then by new owners following that. All landscaping within lots and verges to be managed as per Table 9 of the guidelines, extract shown in Appendix B.

For further information, see Appendix A: Spatial Representation of proposed risk management measures of this report. The APZ is to be managed as per Table 9: *Asset Protection Zone (APZ) technical requirements* of the Guidelines (see Appendix B).

A2.3 Clearing of native vegetation

The subdivision does not require the clearing of native vegetation.

Element 3: Vehicular Access

A3.1 Public Roads

The minimum requirements under this acceptable solution are applicable to all proposed and existing public roads.

Public roads are to meet the minimum technical requirements of Appendix B.3, Table 10, extract shown below.

Due to the current dependence on neighbouring developments to provide access and the absence of details in how this is to be managed, this cannot yet be fully addressed however the following preliminary scenarios could be incorporated to ensure road access is compliant:

Stage 2: A temporary road is recommended through Lots 19 and 20 until such time that the neighbouring western lot establishes a connecting road. These lots will not be significantly impacted, as they are already required to remain quarantined until the adjoining development proceeds and the surrounding grassland is removed (refer to A2.2). The proposed temporary road will provide interim compliant access for Lots 21–40.

Stage 3: Roads are to be constructed per plans for Lots 9001 and 44–61. Lots 60 and 61 are quarantined (refer to A2.2) and therefore do not require a turnaround to service them. All other temporary T-sections within this stage of development will function as turnarounds until connecting roads are established through subsequent neighbouring development, at which point these turnarounds will be superseded by through-road connections.

All no through rods are to be 200 metres or less in each stage and have compliant turnarounds.

Table 10: Vehicular access technical requirements

	1		2		3		4		5	
TECHNICAL REQUIREMENTS	**PERIMETER ROADS**		**PUBLIC ROADS**		**EMERGENCY ACCESS WAY[3]**		**FIRE SERVICE ACCESS ROUTE[3]**		**BATTLE-AXE & PRIVATE DRIVEWAYS[1]**	
MAP OF BUSH FIRE PRONE AREAS DESIGNATION	**Area 2**	**Area 1**	**Area 2**	**Area 1**	**Area 2**	**Area 1**	**Area 2**	**Area 1**	**Area 2**	**Area 1**
Minimum horizontal clearance (metres)	12	8	See note 5		10	6	10	6	6	
Minimum vertical clearance (metres)	4.5									
Minimum weight capacity (tonnes)	15									
Maximum grade unsealed road[2]	See note 5		See note 5		1:10 (10% or 6°)					
Maximum grade sealed road[2,4]					1:7 (14.3% or 8°)					
Maximum average grade sealed road					1:10 (10% or 6°)					
Minimum inner radius of road curves (metres)					8.5					

Notes:

[1] Driveways and battle-axe legs to comply with the Residential Design Codes and Development Control Policy 2.2 Residential Subdivision where not required to comply with the widths in this Appendix or the Guidelines.

[2] Dips must have no more than a 1 in 8 (12.5% - 7.1 degrees) entry and exit angle.

[3] To have crossfalls between 3 per cent and 6 per cent.

[4] For sealed roads only the maximum grade of no more than 1 in 5 (20 per cent) (11.3 degrees) for no more than 50 metres is permissible, except for short constrictions to 3.5 metres for no more than 30 metres in length where an obstruction cannot be reasonably avoided or removed.

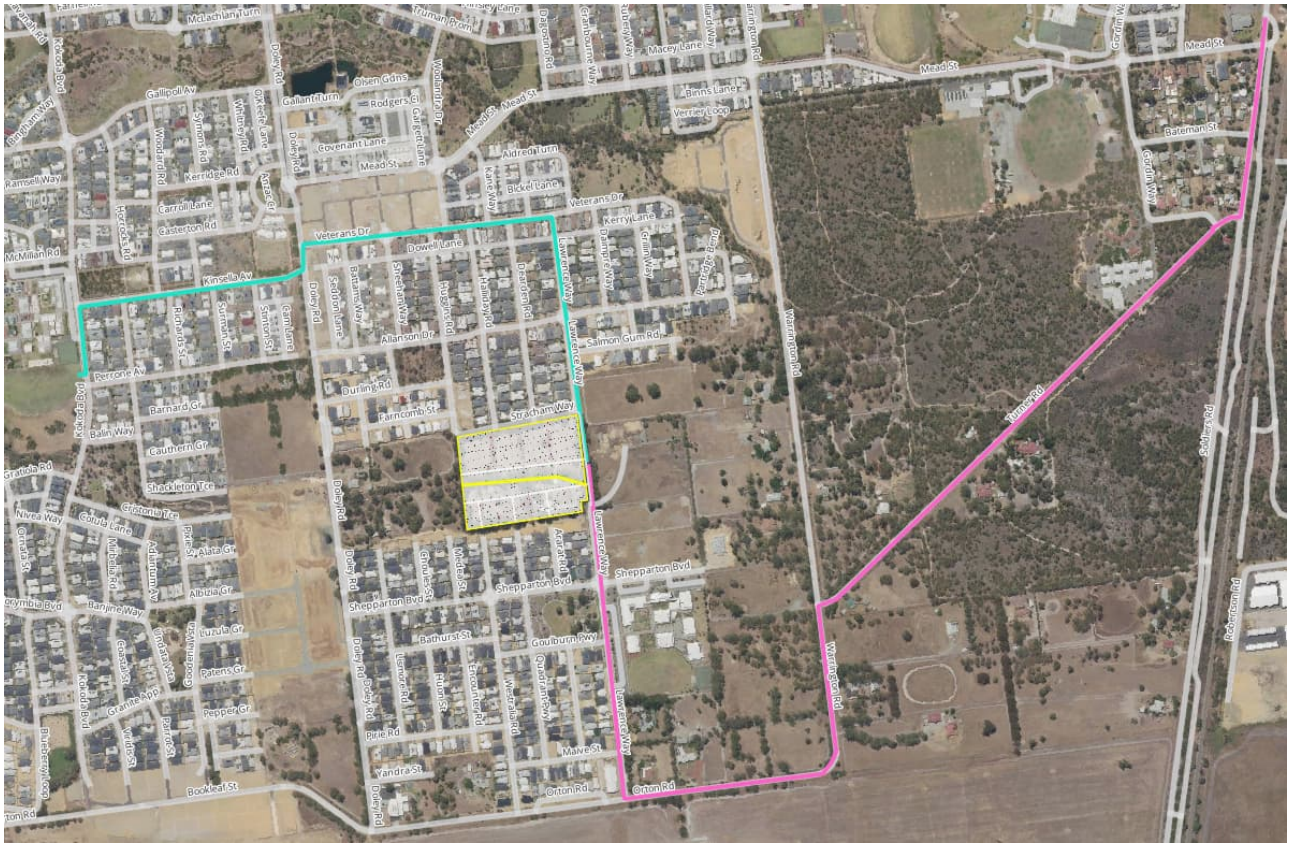
[5] As outlined in the Institute of **Public Works Engineering Australasia (IPWEA) subdivision guidelines, Liveable Neighbourhoods, Austroads Standards** Main Roads standard, supplement, policy or guideline and/or any applicable or relevant local government standard or policy.

A3.2 Access routes

The subdivision is within an area classified as 'Area 2', therefore, public road access is provided in two different directions to at least two different suitable destinations with an all-weather surface (two-way access).

Following the development of the proposed road network, including neighbouring developments, two-way access will be available to the north (via Veterans Drive, providing connection west) and to the south along Lawrence Way (connecting with Orton Road and providing eastern egress through Warrington and Turner Roads).

The preferred evacuation route is via Lawrence Way and connecting streets to the west, as this avoids heavily vegetated areas to the east and instead traverses predominantly dense urban areas.



First Access/Egress Option
Second Access/Egress Option

A3.3a No-through-roads

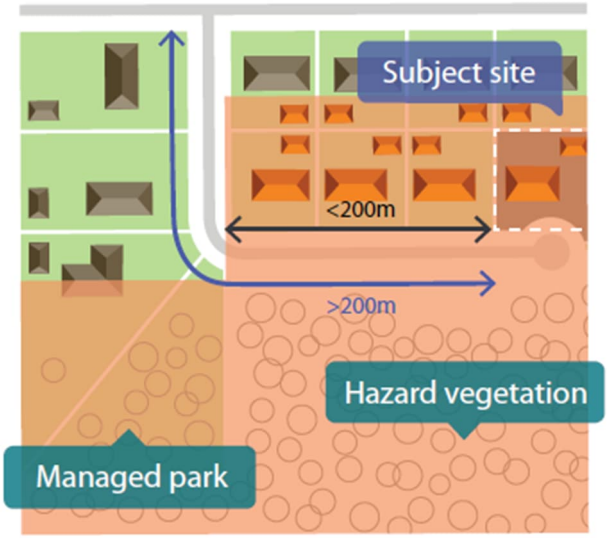
The subdivision is within an area classified as 'Area 2' and therefore has requirements for no-through road access. All temporary no through roads are to be less than 200 metres and have turn around areas as required by the guidelines.

Public road access to the subject site is via a no-through road, which cannot be avoided due to demonstrated site constraints and the pending development of neighbouring lots. The road length exceeds the maximum allowable 200 metres from the proposed lot boundary to the nearest intersection providing two-way access.

The provision of alternative access, such as an emergency access way, is not practicable given the physical limitations of the site and the imminent development of surrounding land. However, the following requirement is satisfied:

- the no-through road travels towards a suitable destination; and
- The portion of the no-through road exceeding 200 metres from the two-way access is located entirely within a BAL–LOW residential built-out area (refer to Figure 29 below).

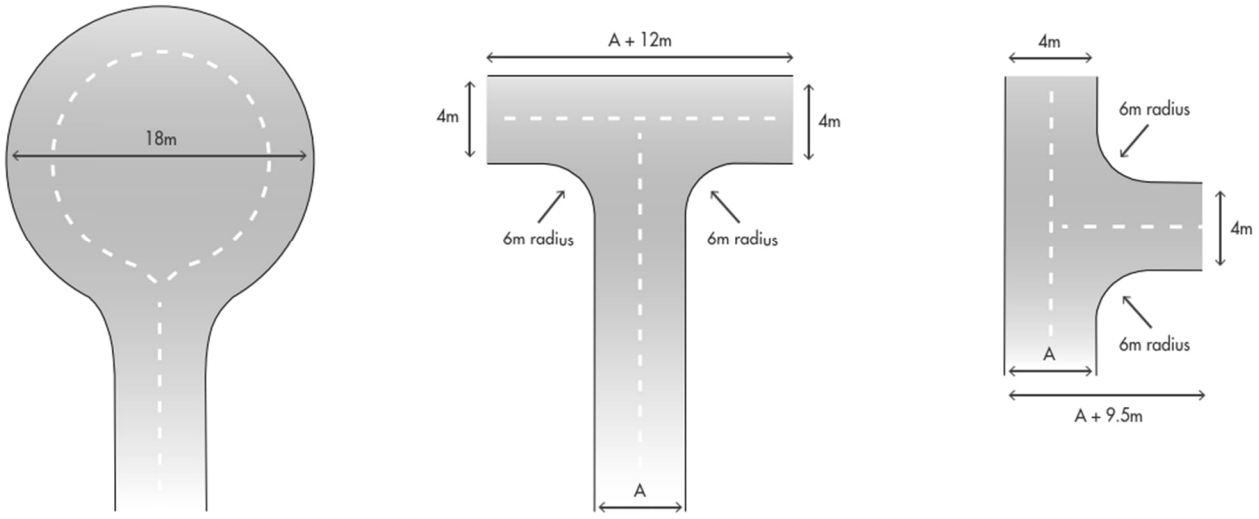
Figure 29: Example of a site on a no-through road greater than 200 metres but within 200 metres of BAL-LOW



A3.3b No-through-road requirements

All no-through roads at any stage of the subdivision plan must meet the requirements of a public road (Appendix B.3, Table 10, Column 2) and have a turn-around area/head as shown in Figure 30 of the Guidelines as reproduced below:

Figure 30: Design requirements for a turn-around area



A3.4 Emergency access way - TBC

A3.2 and A3.3a cannot be achieved due to existing site constraints therefore an emergency access way is proposed to ensure safe access during a bushfire event.

The emergency access way will meet all the following requirements:

- requirements in Appendix B.3, Table 10, Column 3;
- provides a through connection to a public road;
- be no more than 500 metres in length;
- the proponent obtaining consent from the local government that it will accept care, control and management; and
- must be signposted and if gated, gates must open for the whole carriageway width remain unlocked.

A3.5a Perimeter roads – Not Applicable

A perimeter road is not required as the adjoining classified vegetation is Class G Grassland.

A3.5b Fire service access route – Not Applicable

A3.6 Battle-Axe Legs – Not Applicable

Element 4: Water

A4.1 Water supply for structure plans – Not Applicable for subdivisions

A4.2 Provision of water for firefighting purposes

Water supply will be provided through a reticulated system, with new hydrant connections to be installed in accordance with Water Corporation's *Design Standard DS 63: Design and Construction Requirements for Water Reticulation Systems up to DN250*. The existing hydrants are inadequate to support the proposed subdivision, and additional hydrants will be required. A qualified hydraulic consultant must be engaged to ensure full compliance with DS 63.

A4.3 Water supply for existing habitable building(s) – Not Applicable

Existing building(s) are not to be retained.

7 Implementation and Ongoing Maintenance Responsibilities

The following tables set out the responsibilities of the developer(s), landowner(s) and local government for the initial implementation and ongoing maintenance associated with this proposal.

Draft only - Implementation to be updated

	Management Action	Timing
	Proponent/Developer	
1	Establish the Asset Protection Zone (APZ) to the dimensions and standard stated in this BMP.	Prior to issue of titles
2	Establish roads and access routes to the required surface condition and clearances.	Prior to issue of titles
3	Engage bushfire consultant to provide updated BMP regarding road network compliance prior to each staged release.	Prior to issue of titles
4	Prepare and submit a detailed landscaping plan for the proposed Public Open Space (POS) area. The plan is to be reviewed by a qualified bushfire consultant and approved by Council prior to implementation.	Prior to the lodgement of subdivision application
5	Install hydrant connections in accordance with Water Corporation's No. 63 Water Reticulation Standard.	Prior to issue of titles
6	Place Section 165 notice on title for all lots within a bushfire prone area.	Prior to issue of titles
7	Lots 19, 20, 60 and 61 to be quarantined to the satisfaction of approving authority.	Prior to issue of titles
8	Extract of this bushfire management plan showing BAL contour levels and applicable BAL level (Highest and modified) and setbacks required for modified BAL level to be included in all sales documentation for this land release and provided to all prospective purchasers.	Prior to sale

The following items, as numbered in the above table, are subject to a Compliance Certificate issued by the Bushfire Consultant:

Items 1, 2, 3 and 4.

7.1 Acknowledgement - Proponent

The proponent acknowledges the responsibilities as listed above and the requirement to ensure that should the land transfer to a new owner, that the new owner is aware of the BMP and their ongoing responsibility.

8 General References

Office of Bushfire Risk Management (OBRM). (2020). *Bushfire risk management (BRM) plan guidelines*. Retrieved October 2020.

Standards Australia. (2024). *AS 3959-2018 construction of buildings in bushfire-prone areas*. Sydney.

WA Department of Planning. (2016). *Visual guide for bushfire risk assessment in Western Australia*.

Water Corporation. (2018). *Design standard DS 63: Water reticulation standard design and construction requirements for water reticulation systems up to DN250 (Version 3, Revision 14)*. Water Corporation.

Western Australian Planning Commission. (2024). *State planning policy 3.7 Bushfire*. State of Western Australia.

Western Australian Planning Commission. (2024). *Planning for bushfire guidelines*. State of Western Australia.

9 Online references

Landgate. (2024). Map Viewer Plus. Government of Western Australia. Retrieved from https://map-viewer-plus.app.landgate.wa.gov.au/index.html

Office of Bushfire Risk Management (OBRM). (2024). Map of Bush Fire Prone Areas. Retrieved from https://maps.slip.wa.gov.au/landgate/bushfireprone/

WA Local Government Association (WALGA). Environmental Planning Tool. Retrieved from https://pbp.walga.asn.au/Tools/EnvironmentalPlanningTool.html

10 Acknowledgement of Country

We acknowledge the traditional custodians of the land on which we operate, the Noongar people. We pay our respects to their elders, past, present, and emerging, and recognise their enduring connection to the land and environment. As we conduct our bushfire management and reporting, we honour their legacy and their stewardship of our natural landscapes.

11 Appendices

Appendix A: Spatial Representation of proposed risk management measures (Next Page)

Lot 4 (#52) Lawrence Way, Byford



NOTES

Asset Protection Zone (APZ)

Current condition of neighbouring lots to the west (#109 and #119) results in Lots 19, 20, 60, 61 unable achieve a suitable buildable area of BAL–29 or lower with an APZ or setbacks. These lots are to be quarantined until:

a) a management agreement can be formalised over neighbouring grassland; or

b) the development of neighbouring lot per approved structure plans.

All other lots do not require additional setbacks and are to be maintained to APZ standards, including all grass being maintained at less than 100mm tall, by the developer until sale and then by new owners
following that. All landscaping within lots and verges to be managed as per Table 9 of the guidelines,
extract shown in Appendix B.

Water Supply

Water supply will be through reticulated water via new hydrant connections provided in accordance with Water Corporation's No. 63 Water Reticulation Standard. A qualified hydraulic consultant must be engaged to ensure full compliance with DS 63.

Access

Access is to comply at each stage of development. All temporary no through roads to be maximum 200 metres with turnaround areas as required by the guidelines and detailed in this BMP.

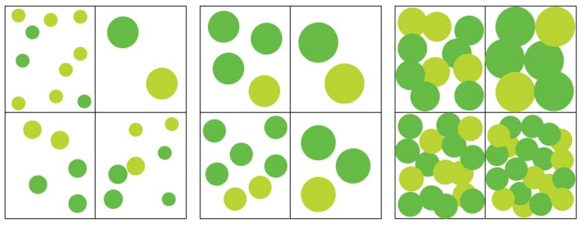
Figure: 8 *Spatial Representation of proposed risk management measures.*

	APZ		
	Subject Land	H	Additional Hydrants (indicative only)
	Proposed Lots		Planned roads with indicative turn-arounds

08 9555 9444
BAL@bushfiresmart.com.au
Address: 71 Allnutt Street, Mandurah, 6210
Postal: PO Box 4160, Mandurah North, WA, 6210

Appendix B: APZ technical requirements

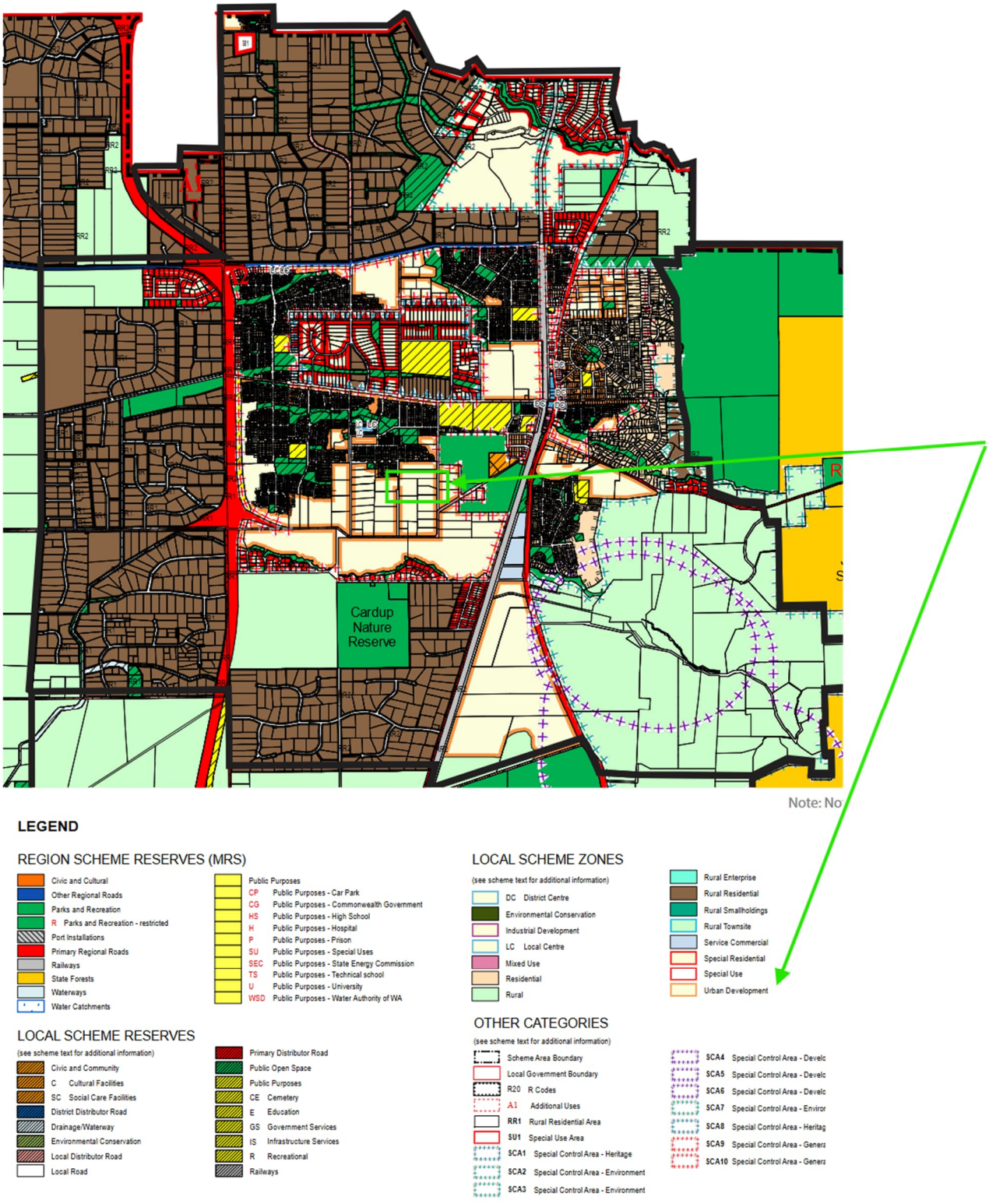
The APZ is to be managed as per the extract from *Table 9: Asset Protection Zone (APZ) technical requirements* (WAPC 2024).

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 less than 6 mm in thickness)	• Should be managed and removed on a regular basis to be maintained as low threat vegetation • Should be maintained at less than two tonnes per hectare (on average) • Mulches should be non-combustible such as stone, gravel, shells, rock or crushed mineral earth or wood mulch more than five millimetres in thickness.
Trees* (more than 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 less than 15 per cent of the total APZ area • Tree canopies at maturity should be at least 5 m apart to avoid forming a continuous canopy. Stands of existing mature trees with interlocking canopies may be treated as an individual canopy provided the total canopy cover within the APZ does not exceed 15 per cent and is not connected to the tree canopy outside the APZ. Tree canopy cover – ranging from 15 to 70 per cent at maturity 
Shrub* and scrub* (0.5 metres to 6 m in height). Shrub and scrub more than 6 m 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 more than 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 m in height. Ground covers more than 0.5 metres in height are to be treated as shrub)	• 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 more than 100 millimetres in height.
Grass	• Grass should be maintained at a height of 100 mm or less, at all times. • Wherever possible, perennial grasses should be used and well-hydrated with regular application of wetting agents and efficient irrigation
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.

Appendix C: Supporting Structure Plans

Figure 6, page 35 of the Byford District Structure Plan:

Figure 6: Draft Local Planning Scheme 3 Map Extract



Doley Road Precinct Local Structure Plan (See Plan A: Local Structure Plan):

