

Landscaping, Verge Treatment and Ongoing Maintenance Schedule Fynd Street Road Reserve.



Lot 274 (No. 8) Fynd Street,
Goode Beach, WA 6330

Final v1

29/11/2022



Site Details			
Address:	Lot 274 (No. 8) Fynd Street		
Suburb:	Goode Beach	State:	W.A. Postcode 6330
Local Government Area:	City of Albany		
Description of Building Works:	Development application and verge crossover agreement. This document will support the verge treatment application.		
Stage of WAPC Planning	Development Application		

Report Details			
Report / Job Number:	BAL0752-002	Report Version:	Final v1
Assessment Date:	14 February 2022	Report Date:	29 November 2022
BPAD Practitioner	Jason Benson (Level 2)	Accreditation No.	BPAD 37893
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BIO DIVERSE SOLUTIONS

Overview Map Scale 1:100,000

Legend

- Subject Site
- 100m Assessment Boundary
- 150m Assessment Boundary
- Cadastral
- 5m Contours
- Photo Point
- Tree
- Remove Tree
- Driveway Crossover
- Understorey Management (Weeds Removed)
- Understorey Retention

Scale
 1:250 @ A3
 GDA MGA 94 Zone 50

Data Sources:
 Aerial Imagery: WA Now, Landgate Subscription Imagery
 Cadastral, Relief/Contours and Roads: Landgate 2017
 IRIS Road Network, Main Roads Western Australia 2017
 Overview Map: World Topographic map service, ESRI 2012

CLIENT
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BRM
 BRM

GA Check
 MLH

FILE
 BAL0762

Drawn by
 GSK

DATE
 21/11/2022

Fynd Street Verge Treatment			
BAL Assessor	BRM	GA Check	MLH
Drawn by	GSK	FILE	BAL0762
STATUS	FINAL	DATE	21/11/2022

Landscaping, Verge Treatment and Ongoing Maintenance Schedule

Fynd Street Road Reserve.

- Remove all trees that have been indicated to remove;
- Trees that are to be retained (12 in the road verge) are to be trimmed to 1.5-2m above the ground;
- Trees and scrub should have dead branches/material removed;
- Five small clumps, approximately 5m² in size (indicated in green) will have the understorey (shrubs, sedges and scrub) retained and separated from each other by managed/low fuel areas;
- All areas outside of the small clumps should have the understorey (Scrub, sedges, shrubs, grasses and small trees) removed/modified to a low threat state and managed in perpetuity;
- Outside of the small clumps to remain, vegetation should be slashed, fine fuel loads, including combustible dead vegetation and material less than 6mm in width maintained at an average of less than two tonnes per hectare;
- All grass within the low fuel areas should be managed to a height of 100mm or less;
- Areas marked in red, have an understorey prominently consisting of weeds, the understorey in these areas should be removed/modified to a low threat state and managed in perpetuity, refer to attached Schedule of ongoing annual maintenance;

Note: Any clearing of vegetation may be subject to a Section 40 approval from DBCA as per the WA Biodiversity Conservation Act requirements due to the possible presence of the Western Ring Tail Possum.

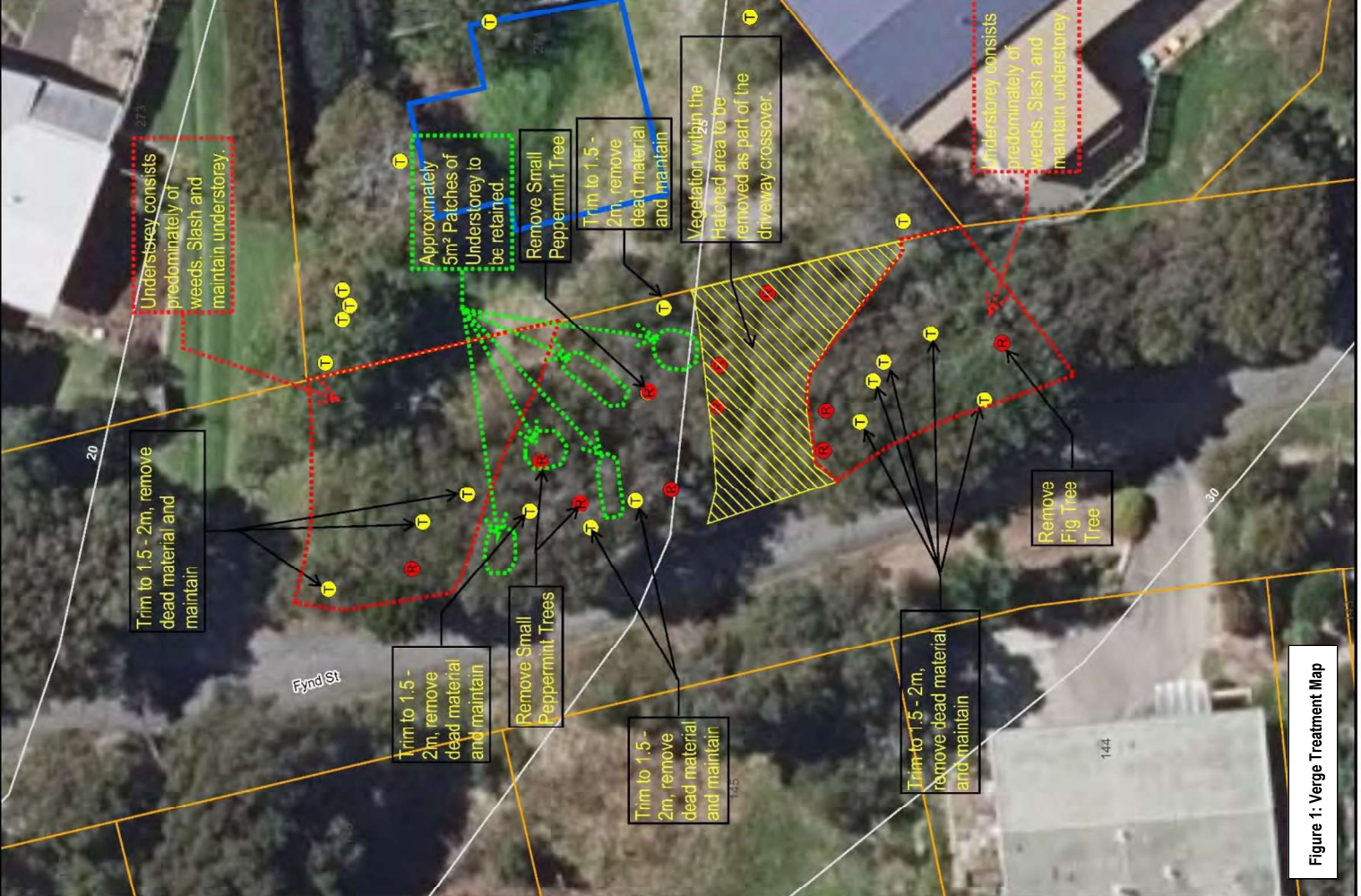


Figure 1: Verge Treatment Map



Overview Map Scale 1:100,000

- Legend**
- Subject Site
 - Proposed Garage
 - Cadastre
 - 5m Contours
 - Asset Protection Zone (APZ) BAL-40
 - APZ Separation Distance
 - Future Low Fuel
 - Vegetation/Plot Boundary
- Vegetation**
- Forest Type A
 - Scrub Type D
 - Low fuel or non vegetated 2.2.3.2

Scale 1:500 @ A3
GDA MGA 94 Zone 50

Data Sources: WA Now, Landgate Subscription Imagery
Aerial Imagery, WA Now, Landgate Subscription Imagery
Cadastre, Relief Contours and Roads Landgate 2017
IRIS Road Network, Main Roads Western Australia 2017
Overview Map: World Topographic map service, ESRI 2012

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Works Program

BAL Assessor	JRB	QA Check	MLH	Drawn by	GSK
STATUS	FINAL	FILE	BAL0752	DATE	27/10/2022

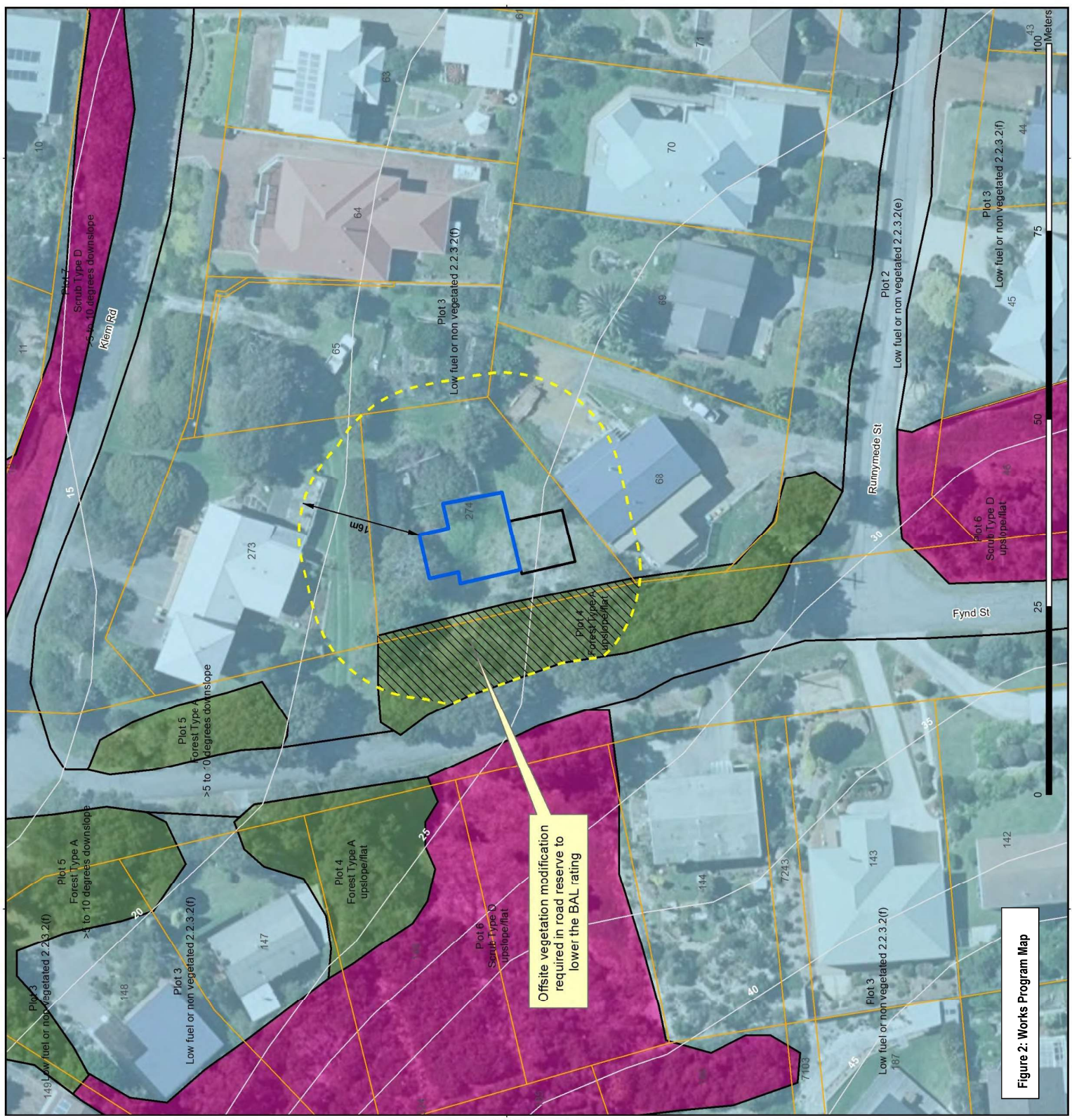


Figure 2: Works Program Map

Fuel Reduction in Verge and Asset Protection Zone (APZ) Management

Ongoing management of the verge and APZ by landowners through annual maintenance of the area is required. A verge crossover agreement will be required with the CoA to maintain the BAL allocation. Mechanical slashing and mowing will be required to be undertaken regularly to ensure the BAL rating on the house is maintained. Buildings are to be inspected regularly for build-up of wind-borne debris and leaf accumulation in gutters and at penetrations to buildings (doors, windows, etc). The lot owner is to be responsible for implementation of the maintenance schedule to maintain their BAL and general bushfire preparedness which should generally reflect the following actions, refer to Table 1.

Table 1: Maintenance schedule.

Frequency	Activity
Initial	Remove all trees that have been indicated to remove.
	Trees that are to be retained (12 in the road verge) are to be trimmed to 1.5-2m above the ground.
	Trees and scrub should have dead branches/material removed.
	Separate the five small clumps to be retained by slashed low fuel buffers.
	Weeds and non-native trees removed.
	All areas outside of the five small clumps should have the understorey (Scrub, sedges, shrubs, grasses and small trees) removed/modified to a low threat state.
	Areas marked in red on the on the Verge Treatment Map has an understorey prominently consisting of weeds, the understorey in these areas should be removed/modified to a low threat state and managed in perpetuity.
Weekly (During fire season operations and prior to bushfire event) Also refer to Schedule 1, Appendix B	All grass within the low fuel areas should be managed to a height of 100mm or less.
	Mowing, slashing and maintaining grasses, more frequent during spring and autumn growth periods.
	Whipper snipper/grass cutter around all buildings.
	Pruning climbing vegetation (such as vines) on a trellis, to ensure it does not connect to a building, particularly near windows and doors.
	Check all buildings for wind borne debris build up and remove.
	Check gutters are free from vegetation.
Fortnightly to Monthly (As required to maintain low threat state)	Ongoing management (slashing, mulching, mowing) of all areas marked in red on the on the Verge Treatment Map.
	Trees and scrub should have dead branches/material removed.
	Trimming and removing dead plants, branches or leaf litter.
	All areas outside of the small clumps should have the understorey (Scrub, sedges, shrubs, grasses and small trees) removed/modified to a low threat state and managed in perpetuity.
	Outside of the small clumps to remain, vegetation should be slashed, fine fuel loads, including combustible dead vegetation and material less than 6mm in width maintained at an average of less than two tonnes per hectare (more frequently as required).
	Slash, mulch or mow the areas outside of the five small clumps (more frequently as required).
	Outside of the small clumps to remain, vegetation should be slashed, fine fuel loads, including combustible dead vegetation and material less than 6mm in width maintained at an average of less than two tonnes per hectare (more frequently as required).
	Raking and cleaning underfloor spaces (if applicable).
	Check flammable outdoor objects around buildings move if possible.
	Check no combustible materials are store near buildings or penetrations of buildings (windows doors etc), includes but not limited to – gas bottles, fences stored combustible material, vines, plants etc.
	Ensure weeds or woody material is not encroaching into the APZ area around buildings, attend to any dead material through trimming and pruning, raking and removing to green waste.
	Any material from pre fire season preparation is either disposed to green waste or burn in piles away for the buildings with a 10m mineral earth break around the pile.
	Maintain weeds throughout the road verge.

Also refer to Schedule 1, Appendix B of this report for additional information on the management of the APZ.

Note: Any clearing of vegetation may be subject to a Section 40 approval from DBCA as per the WA Biodiversity Conservation Act requirements due to the possible presence of the Western Ring Tail Possum.

Appendix A

Vegetation Map from BAL Report



- Legend**
- Subject Site
 - Proposed Garage
 - 100m Assessment Boundary
 - 150m Assessment Boundary
 - Cadastre
 - 5m Contours
 - Separation Distance
 - Slopes Degrees
 - Photo Point
 - Vegetation/Plot Boundary
- Vegetation**
- Forest Type A
 - Scrub Type D
 - Low fuel or non vegetated 2.2.3.2

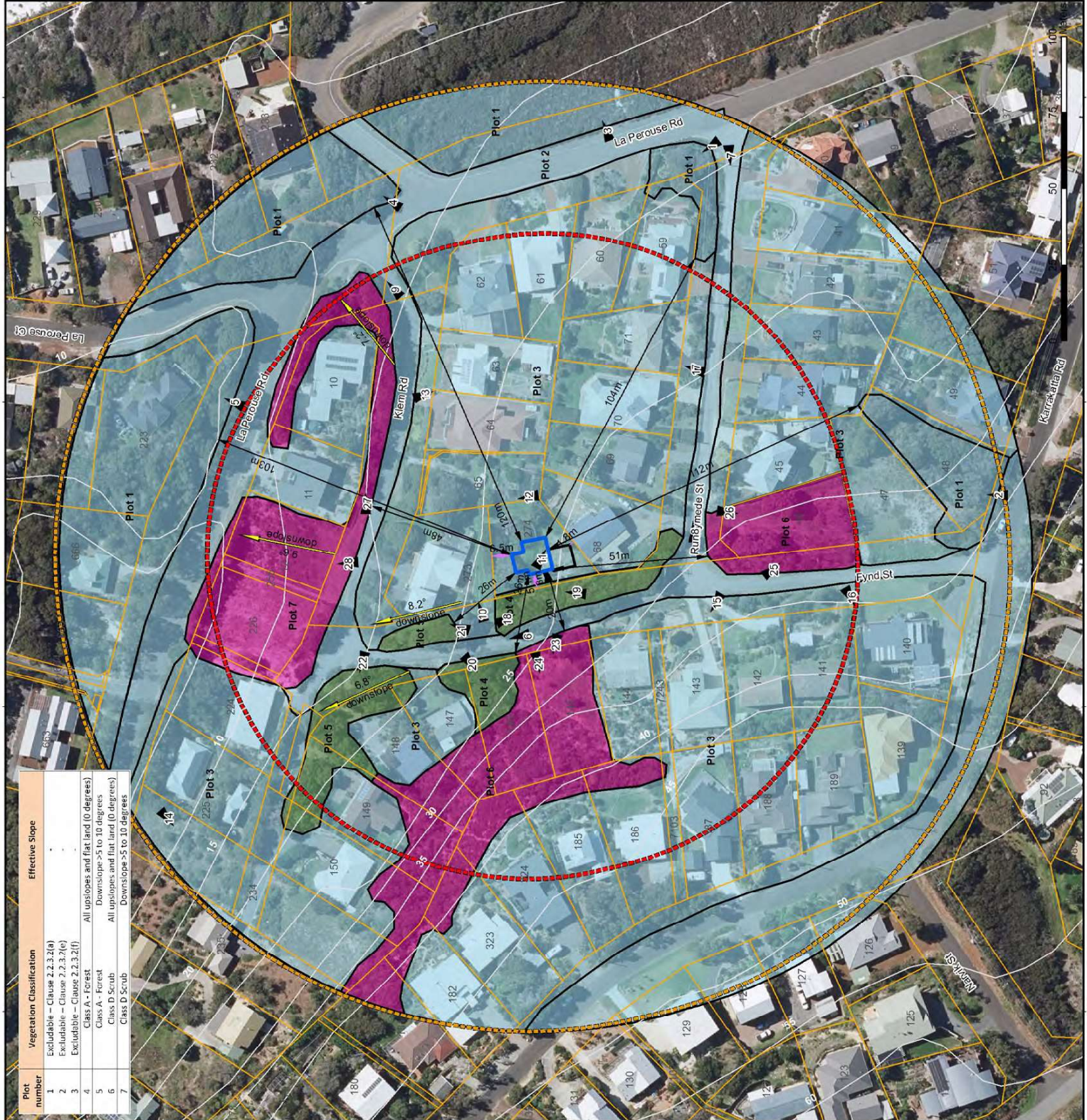

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Site Plan / BAL Assessment

EAL Assessor	BRM	GA Check	MLH	Drawn by	GSK
STATUS	FINAL	FILE	BAL0752	DATE	27/10/2022



Plot number	Vegetation Classification	Effective Slope
1	Excludable - Clause 2.2.3.2(a)	-
2	Excludable - Clause 2.2.3.2(e)	-
3	Excludable - Clause 2.2.3.2(f)	-
4	Class A - Forest	All upslopes and flat (0 degrees)
5	Class A - Forest	Downslope > 5 to 10 degrees
6	Class D Scrub	All upslopes and flat (0 degrees)
7	Class D Scrub	Downslope > 5 to 10 degrees

Appendix B

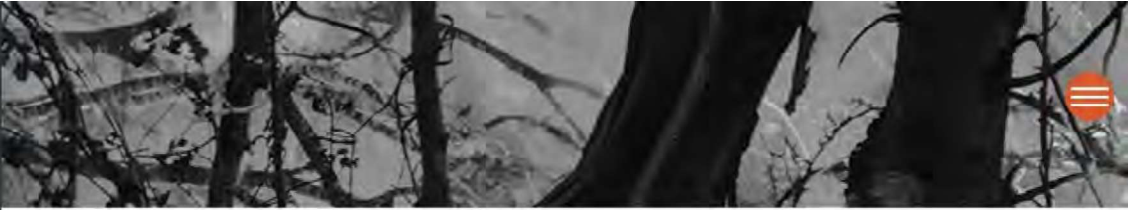
Schedule 1 WAPC Asset Protection Zone (APZ) standards to apply



ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

SCHEDULE 1: STANDARDS FOR ASSET PROTECTION ZONES

OBJECT	REQUIREMENT
Fences within the APZ	<ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> 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. <p data-bbox="544 1339 1126 1402">Figure 19: Tree canopy cover – ranging from 15 to 70 per cent at maturity</p> <div data-bbox="544 1429 1270 1738"> </div>
Shrub* and scrub* (0.5 metres to six metres in height). Shrub and scrub >6 metres in height are to be treated as trees.	<ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> 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.



ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

SCHEDULE 1: STANDARDS FOR ASSET PROTECTION ZONES

OBJECT	REQUIREMENT
Grass	<ul style="list-style-type: none"> • 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.
Defendable space	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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.

* Plant flammability, landscaping design and maintenance should be considered – refer to explanatory notes