



Appendix B Bushfire Management Plan

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:			
Suburb:	State:	Postcode:	
Local government area:			
Description of the planning proposal:			
BMP / Reference number:	Version:	Date of issue:	
Client / Business name:			

Reason for referral to DFES ¹	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 an outcomes-based approach?		
Strategic planning proposal (including rezoning applications)		
Local planning scheme amendment containing supplementary provisions, additional to the deemed provisions for bushfire risk management		
Where a bushfire local planning policy, or variation to the acceptable solutions or the APZ is proposed		
Where there is a conflict of opinion between the decision maker and proponent		
Expert technical advice on bushfire behaviour, emergency management, or other occasions where bushfire technical advice is required to support planning decision-making		
Expert technical advice on bushfire matters referred to State Administrative Tribunal (SAT) or Development Assessment Panel (DAP)		
Comments on future buildings' compliance with FES Commissioner's operational requirement guidelines		
Decision maker discretionary referral, (e.g. renewable energy, hazardous materials, 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.)?

--

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
Company		Contact No.	

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 For more information please refer to DFES [Referral to DFES Checklist](#)

Bushfire Management Plan

Lot 51 Raymond Road, Roelands

Shire of Harvey

Date: 1 December 2025

Bushfire Logic

ABN: 926 121 79165

LIMITATIONS STATEMENT

This report has been prepared in accordance with the Agreement between Bushfire Logic and the Client. This Bushfire Management Plan has been prepared for the sole purpose of supporting an application for subdivision as it applies to Lot 51 Raymond Road, Roelands (the Site).

In undertaking this work the author(s) have made every effort to ensure the accuracy of the information used. Unless otherwise stated in the report, Bushfire Logic has not independently verified such information and cannot guarantee its accuracy or completeness. Within the limitations imposed by the scope of work, preparation of this report has been undertaken and performed in a professional manner, in accordance with generally accepted practices and using a degree of skill and care ordinarily exercised by reputable bushfire consultants under similar circumstances. No other warranty, expressed or implied, is made.

The measures contained in this Bushfire Management Plan, are considered to be minimum requirements and they do not guarantee that a building will not be damaged in a bushfire, persons injured, or fatalities occur either on the subject site or off the site while evacuating. This is substantially due to the unpredictable nature and behaviour of fire and fire weather conditions. Additionally, the correct implementation of the required bushfire protection measures will depend upon, among other things, the ongoing actions of the landowners and/or operators over which Bushfire Logic has no control. The growth, planting or removal of vegetation, poor maintenance of any fire prevention/mitigation measures, addition of structures not included in this report, or other activity can and will change the bushfire threat to all properties detailed in this report.

Should changes be made to the Site, a new Bushfire Management Plan will be required. All surveys, forecasts, projections and recommendations made in this report associated with the proposed development are made in good faith based on information available to Bushfire Logic at the time. All maps included herein are indicative in nature and are not to be used for accurate calculations. Notwithstanding anything contained therein, Bushfire Logic accepts no Liability, including Liability for Loss in connection with:

- A Claim, damage, or injury to property, or persons caused by fire;
- Further growth, planting or removal of vegetation on the Site;
- Poor maintenance of any fire protection measures;
- Additional structures not included in this assessment; or
- Any other activity that may change the bushfire threat level.

The Client and owner of the site acknowledge that they have been made aware of the exclusions above and that such exclusion of Liability is reasonable in all the circumstances.

This report is valid for a period of two years only from the date of its issue. All BAL ratings identified within this report are indicative only and are required to be verified at the time of construction of individual buildings to ensure appropriate setbacks have been achieved.

DOCUMENT CONTROL: REPORT DETAILS		
REPORT VERSION	REPORT DATE	VERSION DETAILS
V1.1	26 March 2025	Original
V1.2	26 October 2025	Report text and mapping updates to reflect subdivision plan change
V1.3	1 December 2025	Mapping and text updates
BPAD Practitioner	Jemma Douglas (Level 2)	BPAD-38400

TABLE OF CONTENTS

LIMITATIONS STATEMENT	2
1. INTRODUCTION	6
1.1 LOCATION.....	6
1.2 DEVELOPMENT PROPOSAL.....	7
1.3 STATUTORY FRAMEWORK.....	8
2. ENVIRONMENTAL CONSIDERATIONS.....	9
2.1 NATIVE VEGETATION –MODIFICATION AND/OR CLEARING.....	9
2.2 REVIEW OF THE ENVIRONMENTAL DATA SETS.....	9
2.3 REVEGETATION/LANDSCAPE PLANS	10
3. BUSHFIRE ASSESSMENT RESULTS.....	11
3.1 ASSESSMENT INPUTS	11
3.2 ASSESSMENT OUTPUT	13
4. IDENTIFICATION OF BUSHFIRE HAZARD ISSUES.....	16
4.1 BUSHFIRE CONTEXT AND LANDSCAPE FIRE RISK.....	16
4.2 ACCESS.....	16
4.3 WATER SUPPLY	17
5. ASSESSMENT AGAINST THE BUSHFIRE PROTECTION CRITERIA	18
5.1 COMPLIANCE TABLE	18
6. RESPONSIBILITIES FOR IMPLEMENTATION AND MANAGEMENT OF BUSHFIRE MEASURES.....	25
6.1 DEVELOPER – PRIOR TO ISSUE OF CERTIFICATE OF TITLES FOR NEW LOTS.....	25
6.2 DEVELOPER - PRIOR TO SALE OR OCCUPANCY	25
6.3 LANDOWNER – ONGOING MANAGEMENT	25
7. CERTIFICATION	26
8. REFERENCES	27

LIST OF TABLES

Table 1: Environmental Dataset Review	9
Table 2: Vegetation Classification Table (as per AS3959:2018)	11
Table 3: Post-Development Vegetation Classification	13
Table 4: AS3959:2018 Vegetation Separation Distances to Corresponding Radiant Heat Impact.....	14
Table 5: Bushfire Protection Criteria Applicable to Subject Site	19

LIST OF FIGURES

Figure 1: Location Map for Subject Site	7
Figure 2: Map of Bushfire Prone Areas and relevance to subject site (OBRM-023).....	8
Figure 3: Vegetation Assessment and Photo Points.....	
Figure 4: Bushfire Attack Level Contour Map.....	
Figure 5: Simplified Broader Landscape Assessment.....	
Figure 6: Bushfire Prone Area Mapping and Tern Place Length.....	

LIST OF APPENDICES

Appendix 1: Vegetation Assessment and Classification	
Appendix 2: Lot 51 Raymond Road Subdivision Plan	

1. INTRODUCTION

Bushfire Logic has been engaged on behalf of the landowners to prepare a Bushfire Management Plan (BMP) to support rezoning and a subdivision application for the creation of 9 freehold lots at Lot 51 Raymond Road, Roelands within the Shire of Harvey. The Western Australian Planning Commission (WAPC) will be the determining authority for both applications.

The south-eastern portion of the subject site adjacent to Tern Place is within a declared Bush Fire Prone Area 2 (BFP2) and the proposed lots within this mapped area are required to be assessed for compliance with State Planning Policy 3.7 – Bushfire (SPP 3.7) (WAPC, 2024) and the bushfire protection criteria contained within the Planning for Bushfire Guidelines (September 2024) (the Guidelines).

The intent of SPP 3.7 is: “to preserve life and reduce the impact of bushfire on property and infrastructure”. This report will undertake an assessment using AS3959:2018 and against the applicable Bushfire Protection Criteria set out within the Guidelines.

1.1 LOCATION

The subject land has a site area of 9.0849ha and is zoned ‘Rural’ under the Greater Bunbury Region Scheme ‘Priority Agriculture’ under the Shire of Harvey Local Planning Scheme No.2. The site is within that covered by Amendment 1 to the Treendale Structure Plan Policy Area 3B which was approved by the WAPC on 6 April 2023. In accordance with this document, the subject land is identified for ‘Special Residential’. The subject site adjoins the Wilman Wadandi Highway road reserve to the north and east, developed residential land to the south-west, and Tern Place to the south and south west. The Collie River also runs adjacent to the subject land to along the southern boundary (Figure 1).

Address Details	Street no.		Lot no.	Street name
	N/A		51	Raymond Road
	Suburb & State Roelands, Western Australia			
Local government area	Shire of Harvey			
Site Area	9.0849ha			
Main BCA class of the building	N/A	Use(s) of the existing building		Vacant land
Description of development	Proposed subdivision application to create 9 freehold lots			



Figure 1: Location Map for Subject Site

1.2 DEVELOPMENT PROPOSAL

The proposal is for the approval of a subdivision application to create 9 freehold lots (Appendix 2: Subdivision Plan).

Existing land use	Vacant Land
Proposed land use:	Subdivision application to create 9 freehold lots
Local Planning Scheme Zoning	Priority Agriculture
Local Structure Plan:	Treendale Structure Plan Policy Area 3B
Local Planning Policies:	N/A
State Planning Policy 3.7	SPP 3.7 – Section 7.1 – General measures Planning for Bushfire Guidelines – Bushfire Protection Criteria 5 - Structure Plans and Subdivision Applications

The 2023-2024 review of the Bushfire Prone Area Mapping introduced two distinct bush fire contexts. Area 1 comprises selected suburbs located on the Swan Coastal Plain within the Perth, Peel and Greater Bunbury Region Schemes. These are areas where the intensity of development and non-contiguous nature of vegetation reduces the risk of landscape scale bush fire. Area 2 comprises the remainder of bushfire prone land within Western Australia. The publicly released Bushfire Prone Area Mapping (OBRM-023) shows that the south-eastern portion of the subject site adjacent to Tern Place is within a declared Bush Fire Prone Area 2 (BFP2) and the proposed lots within this mapped area are subject to assessment of the bushfire risk. It is evident that the bushfire prone area mapping follows the alignment of the Collie River. The Bushfire Prone Area Mapping relating to the subject site is shown in Figure 2 below.



Figure 2: Map of Bushfire Prone Areas and relevance to subject site (OBRM-023)

1.3 STATUTORY FRAMEWORK

This document and the recommendations contained within are aligned to the following policy and guidelines:

- *Planning and Development Act 2005;*
- *Planning and Development (Local Planning Scheme) Regulations 2015;*
- State Planning Policy (SPP) 3.7 - Bushfire (September 2024)
- Planning for Bushfire Guidelines (September 2024)
- *Building Act 2011;*
- *Building Regulations 2012;*
- Building code of Australia (National Construction Code);
- *Fire and Emergency Services Act 1998;*
- AS3959-2018 "Construction of buildings in bushfire-prone areas"; and
- *Bushfires Act 1954.*

2. ENVIRONMENTAL CONSIDERATIONS

2.1 NATIVE VEGETATION –MODIFICATION AND/OR CLEARING

The subject land is clear of vegetation and listed native vegetation complexes having been used for grazing and pasture. A review of the environmental data sets as identified in the Department of Planning Lands and Heritage (DPLH) BMP Template has been undertaken and has not identified any regulated (restricted) vegetation that may be affected by the proposal, see Table 1 Environment Dataset Review.

2.2 REVIEW OF THE ENVIRONMENTAL DATA SETS

Table 1: Environmental Dataset Review

Vegetation Modification and/or Clearing Assessment		
Is modification and/or management of vegetation within the subject lot required?		No native vegetation will be impacted by the subdivision proposal.
Environmental Value	Mapped as occurring within or adjacent to the project area	Description
Wetlands	No	The site is not listed as containing any wetlands. It is noted that the Collie River reserve is adjacent to the site.
Waterway Control Area	No	The subdivision site is not located within the Swan-Canning Water Catchment Area.
Commonwealth Threatened Ecological Communities listed under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (the EPBC Act)	No	The subdivision site does not contain any listed TECs.
Fauna habitat listed under the EPBC Act	No	The subdivision site is not listed as containing fauna habitat under the EPBC Act.
Bush Forever Site	No	The subdivision site is not listed as containing any bush forever sites.
DBCA managed lands and waters	No	The site is not impacted by DBCA managed land or waters.

Conservation covenants	No	There are no existing conservation covenants in place for the subdivision site.
------------------------	----	---

2.3 REVEGETATION/LANDSCAPE PLANS

It is not expected that a revegetation plan will be required as a condition of subdivision approval. Any landscaping required as part of future dwellings will be required to be maintained in accordance with the Shire's Fire Hazard Reduction Notice and Table 9, Appendix B - Asset Protection Zone Technical Requirements of the Guidelines. In this regard, it is not expected that landscaping will result in changes to the bushfire attack level ratings.

3. BUSHFIRE ASSESSMENT RESULTS

The bushfire assessment for this site has followed the Bushfire Attack Level (BAL) Assessment and WAPC Planning for Bushfire Guidelines 2024.

3.1 ASSESSMENT INPUTS

Bushfire Assessment inputs for the proposal have been calculated using the Method 1 BAL Assessment procedures as outlined in AS3959:2018. This incorporates the following factors:

- WA adopted Fire Danger Index (FDI), being FDI 80;
- Vegetation Classes;
- Effective Slope under classified vegetation; and
- Distance between proposed development site and classified vegetation

3.1.1 Relevant Fire Danger Index (FDI)

The fire danger index for this site has been determined in accordance with Table 2.1 or otherwise determined in accordance with a jurisdictional variation applicable to the site.

Fire Danger Index

FDI 40 ☐

Table 2.7

FDI 50 ☐

Table 2.6

FDI 80 ☒

Table 2.5

FDI 100 ☐

Table 2.4

3.1.2 Vegetation Classification

A site assessment was undertaken on 25 February 2025. All vegetation within 150m of the subject site has been classified in accordance with Clause 2.2.3 of AS 3959-2018. Each vegetation plot with the potential to determine the Bushfire Attack Level is identified in the following pages and shown on Figure 3: *Pre-Development Vegetation Assessment and Photo Points* map on the following page.

A summary of the plot data assessed as per Clause 2.2.3 of AS 3959-2018 is provided below in Table 2 below, detailed plot data is provided in Appendix 2.

Table 2: Vegetation Classification Table (as per AS3959:2018)

Plot	Vegetation Classification	Effective Slope
1	Class G Grassland	Flat/Upslope
2	Class G Grassland	Downslope >0-5 degrees
3	Class G Grassland	Downslope 8 degrees
4	Class A Forest	Downslope 8 degrees
5	Class A Forest	Flat/Upslope

6	Class B Woodland	Flat/Upslope
7	Excluded 2.2.3.2 (f) – Low threat vegetation within managed verges of road reserves and public open space reserves	N/A

FIGURE 3: PRE-DEVELOPMENT VEGETATION ASSESSMENT AND PHOTO POINTS
LOT 51 RAYMOND ROAD, ROELANDS



- Legend**
- Photopoint
 - Hydrant
 - 100m Assessment Boundary
 - 150m Assessment Boundary

- Vegetation Classification**
- Excluded 2.2.3.2 (e)
 - Excluded 2.2.3.2 (f)
 - Class B Woodland
 - Class A Forest
 - Class G Grassland
 - Class D Scrub
 - Class C Shrubland

3.2 ASSESSMENT OUTPUT

3.2.1 Bushfire Attack Level Results

Figure 4: *Post-Development Vegetation Assessment* provides an indicative vegetation assessment following implementation of the subdivision application. Figure 5: *Bushfire Attack Level Contour Map* illustrates the indicative radiant heat impacts and associated indicative BAL ratings that will impact the subject site as the result of the vegetation being retained within the assessment area. The assessment and BAL contour map have been completed in accordance with the SPP3.7, the Guidelines and Method 1 methodology of AS3959-2018.

Table 3 provides summary of each of the vegetation plots being retained as part of the structure plan amendment.

Table 3: Post-Development Vegetation Classification

Plot	Vegetation Classification	Effective Slope	Comment
1	Class G Grassland	Flat/Upslope	Grassland within the adjacent lot to the east of the subject site. This land is outside of the bushfire prone area mapping but has been retained within the post-development assessment vegetation classification. This vegetation plot is not proposed to be altered through the structure plan and subdivision.
2	Class G Grassland	Downslope >0-5 degrees	Grassland within paddocks on opposite side of Raymond Road. This land is largely outside of the bushfire prone area mapping and is subject to structure planning. It is expected this land will be developed for residential land uses similar to those proposed as part of this application. This vegetation plot is not proposed to be altered through the structure plan and subdivision.
3	Class G Grassland	Downslope 8 degrees	Grassland within the adjacent Collie River reserve. This vegetation plot is not expected to be altered or revegetated into the future and has therefore been assessed in its current state.
4	Class A Forest	Downslope 8 degrees	Forest vegetation within the adjacent Collie River reserve. Not proposed to be altered through this application.
5	Class A Forest	Flat/Upslope	Forest vegetation following tributary to the Collie River. Not proposed to be altered through application.
6	Class B Woodland	Flat/Upslope	Pockets of woodland vegetation remaining along the southern elevation of Tern Place. The woodland vegetation along north/north-eastern elevation of Tern Place will be modified as part of the implementation of the structure plan and subdivision to remove/reduce vegetation to a low-threat fuel.

			This portion of vegetation has therefore been removed from the post development scenario.
7	Excluded 2.2.3.2 (f) – Low threat vegetation within managed verges of road reserves and public open space reserves	N/A	Areas of low threat vegetation including cultivated gardens within adjacent residential zoned lots associated with existing dwellings. These properties are subject to compliance with the Shire’s Firebreak Notice and are required to be maintained in perpetuity.

Table 4 provides an indication of the level of bushfire attack (i.e. the radiant heat flux) that may be received by the proposed lots and the separation distances that will be required for new buildings from each of the vegetation plots.

Table 4: AS3959:2018 Vegetation Separation Distances to Corresponding Radiant Heat Impact

Plot	Vegetation Classification	Effective Slope	Separation distances required (m)				
			BAL-FZ	BAL-40	BAL-29	BAL-19	BAL-12.5
1	Class G Grassland	Flat/Upslope	<6	6-<8	8-<12	12-<17	17-<50
2	Class G Grassland	Downslope >0-5 degrees	<7	7-<9	9-<14	14-<20	20-<50
3	Class G Grassland	Downslope 8 degrees	<8	8-<10	10-<16	16-<23	23-<50
4	Class A Forest	Downslope 8 degrees	<26	26-<33	33-<46	46-<61	61-<100
5	Class A Forest	Flat/Upslope	<16	16-<21	21-<31	31-<42	42-<100
6	Class B Woodland	Flat/Upslope	<10	10-<14	14-<20	20-<29	29-<100
7	Excluded 2.2.3.2 (f) – Low threat vegetation within managed verges of road reserves and public open space reserves	N/A	N/A No separation requirements				

Table 5 provides an indicative bushfire attack level (BAL) rating for each of the proposed lots within the subdivision.

Lot No.	Vegetation Classification	Effective Slope under Vegetation	Separation Distance to Classified Vegetation	Highest BAL Rating	Indicative BAL Rating
1	N/A	N/A	N/A	BAL-LOW	BAL-LOW (lot located outside bushfire prone area mapping)

2	N/A	N/A	N/A	BAL-LOW	BAL-LOW (lot located outside bushfire prone area mapping)
3	N/A	N/A	N/A	BAL-LOW	BAL-LOW (lot located outside bushfire prone area mapping)
4	N/A	N/A	N/A	BAL-LOW	BAL-LOW (lot located outside bushfire prone area mapping)
5	N/A	N/A	N/A	BAL-LOW	BAL-LOW (future building can be located outside bushfire prone area mapping)
6	N/A	N/A	N/A	BAL-LOW	BAL-LOW (future building can be located outside bushfire prone area mapping)
7	N/A	N/A	N/A	BAL-40	BAL-LOW (future building can be located outside bushfire prone area mapping)
8	N/A	N/A	N/A	BAL-40	BAL-LOW (future building can be located outside bushfire prone area mapping)
9	Class B Woodland	Flat/Upslope	11.7m	BAL-40	BAL-12.5 (Indicative building area with 20m front setback)

FIGURE 4: POST-DEVELOPMENT VEGETATION ASSESSMENT
LOT 51 RAYMOND ROAD, ROELANDS



- Legend**
- Photopoint
 - Hydrant
 - 100m Assessment Boundary
 - 150m Assessment Boundary
 - Subject Site

- Vegetation Classification**
- Excluded 2.2.3.2 (e)
 - Excluded 2.2.3.2 (f)
 - Class B Woodland
 - Class A Forest
 - Class G Grassland
 - Class D Scrub
 - Class C Shrubland

FIGURE 5: BUSHFIRE ATTACK LEVEL CONTOUR MAP
LOT 51 RAYMOND ROAD, ROELANDS



Legend

- Photopoint
- Hydrant
- 100m Assessment Boundary
- 150m Assessment Boundary

Bushfire Attack Level Contour

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

4. IDENTIFICATION OF BUSHFIRE HAZARD ISSUES

The purpose of this section is to identify any bushfire hazard issues through an examination of environmental considerations in addition to the bushfire risk assessment. Considerations can include vehicle access constraints both within and adjacent to the site, the location of significant bushfire hazards such as regional reserves or national parks and other relevant bushfire hazards. This is particularly relevant to strategic proposals where consideration of these sorts of factors can assist in determining the suitability of area for development and subdivision or identifying issues that may need to be considered in further detail as part of subsequent planning stages.

4.1 BUSHFIRE CONTEXT AND LANDSCAPE FIRE RISK

The subject site forms part of a transition zone with developed low density residential land to the west, Urban Deferred zone north of Raymond Road and to the south of the Collie River and Rural zoned land to the east. Despite being zoned Rural, the land to the east is the subject of Amendment 1 to Treendale Structure Plan Policy Area 3B (Amendment 1 Structure Plan) which received approval from the Western Australian Planning Commission (WAPC) on 6 April 2023. The intention of the Amendment 1 Structure Plan is to facilitate the development of a rural residential estate to the east of the Wilman Wadandi Highway road reserve. Although not within the bushfire prone area mapping, it is expected that the progressive development of the surrounding land will occur, and through this process the bushfire risk within this land will be reduced.

The Collie River reserve to the south and south-west contains both Class G Grassland and Class A Forest vegetation types. The vegetation within this reserve is the trigger for the bushfire prone area mapping impacting the subject site. These vegetation plots have slopes ranging from 3 degrees to 8 degrees along the banks of the river. The vegetation within this area is not expected to be altered or removed in the future and therefore presents the primary risk of bushfire to the site.

While the vegetation plot along the Collie River foreshore may present a risk of bushfire to the proposed development and the residential land surrounding, the extent of vegetation within this reserve is not consistent with that capable of generating a sustained fire run and bushfire behaviour consistent with a landscape fire event. In this respect, while there remains a risk of bushfire to the subject land, the subject site is not presented with any significant landscape fire risks from the broader locality.

4.2 ACCESS

The subject site is located within an urban fringe locality and has direct access to the adjoining residential zone and a number of local and primary regional road reservations. Tern Place provides direct access to Raymond Road which is a primary regional road reserve and provides connection west to the Forrest Highway and east to the Wilman Wadandi Highway. These primary regional road reserves provide access to the broader Bunbury Region and further abroad to the Perth and Peel regions.

It is noted that Tern Place is an existing no-through road that was created as a result of the construction of the Wilman Wadandi Highway. In this respect, the distance from the edge of the

bushfire prone area mapping to the eastern most lot is 193 metres (see Figure 6 below). Having regard to this, the proposal complies with the requirements of the Guidelines with respect to the maximum length of no-through roads without the requirement for an emergency access way or an outcome-based approach. An existing turn around area has been installed at the termination of Tern Place and this is compliant with respect to the specifications of Figure 30 of the Guidelines.

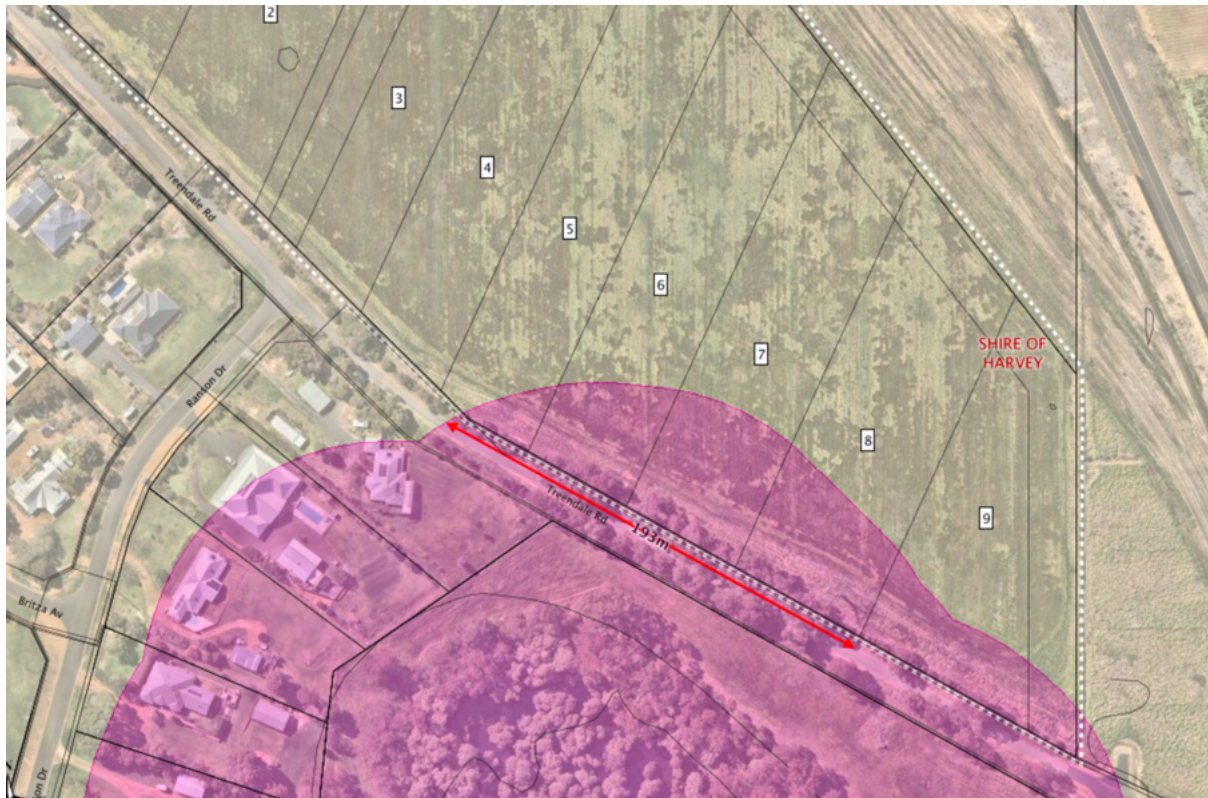


Figure 6: Bushfire Prone Area Mapping and Tern Place Length

4.3 WATER SUPPLY

A reticulated water supply is available to the subject site. Figure 3: *Pre-Development Vegetation Assessment and Photo Points* provides the locations of the existing hydrants that are located within the surrounding road reserves. Additional hydrants will be provided within the new road network and will be installed consistent Water Corporation standard #63.

5. ASSESSMENT AGAINST THE BUSHFIRE PROTECTION CRITERIA

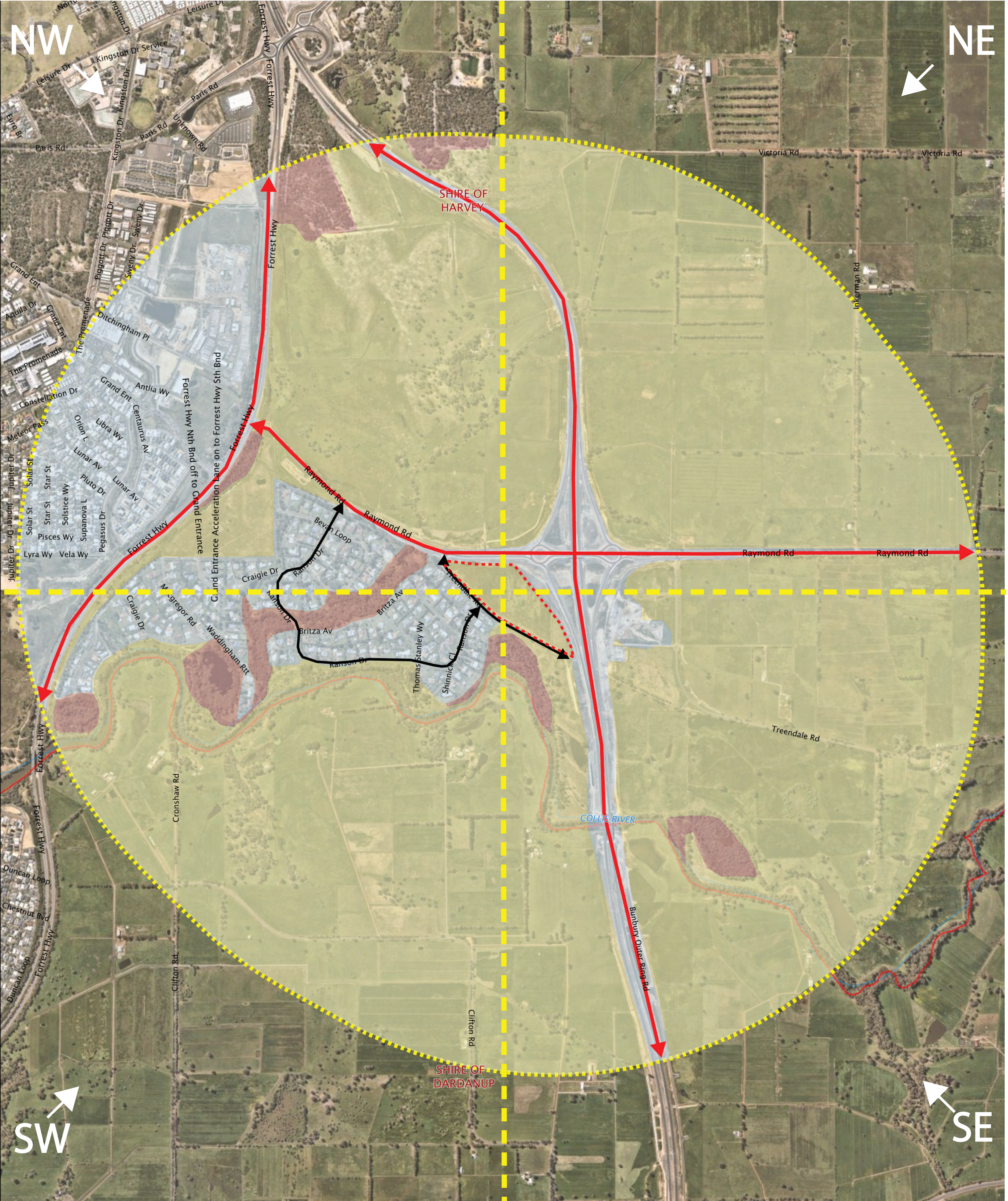
5.1 COMPLIANCE TABLE

The Guidelines outline the bushfire protection criteria which structure plans, subdivision and development proposals are assessed against for compliance. The bushfire protection criteria are performance-based criteria utilised to assess bushfire risk management measures and they outline four elements relevant subject site as follows:

- Element 1 – Location – Broader Landscape ;
- Element 2 – Siting and Design;
- Element 3 – Vehicular Access; and
- Element 4 – Water.

The proposed development has been assessed against Elements 1 to 4 of the bushfire protection criteria and found to be compliant, refer to Table 4

FIGURE 6: BROADER LANDSCAPE AREA ASSESSMENT
LOT 51 RAYMOND ROAD, ROELANDS



LEGEND

Subject Site	Primary Distributor Road
2Km Assessment Area	Regional Distributor Road
Large tracts of classified vegetation	Local Access Road
Mosaic Vegetation Pattern (including Grassland)	
Cleared vegetation (residential or urban zoned land)	

Table 5: Bushfire Protection Criteria Applicable to Subject Site

ELEMENT	ACCEPTABLE SOLUTION	APPLICABLE OR NOT YES/NO	PROPOSAL MEETS ACCEPTABLE SOLUTION	
Element 1 - Location				
A1.1a Broader Landscape Type A	The subject site is located in an area that is a Broader Landscape Type A. This location satisfies the policy outcome for Element 1: Location and no additional consideration is required.	Yes	Compliant	
			Figure 6: Simplified Broader Landscape Assessment demonstrates that the proposed subdivision has been assessed in accordance with Appendix A.1.4.1: Simplified Broader Landscape Assessment requirements of the Guidelines. The following details responses to the requirements of A.1.4.1:	
			1. Is the subject site within a kilometre of a townsite, urban area or suitable destination?	Yes The subject site is located immediately adjacent to an existing Urban zoned land which has been successfully developed as a low-density residential estate. The broader surrounding land north of Raymond Road and south of the Collie River is identified as Urban Deferred and is currently the subject of a structure planning process to progress future development. Land to the east of the site is zoned Rural but is the subject of Amendment 1 to Treendale Structure Plan Policy Area 3B.
			2. Is the road pattern from the planning proposal to the closest townsite, urban area or suitable destination, simple and/or direct (limited intersections)?	Yes The road patterns within the surrounding locality are straight and grid pattern. The subject site takes direct access from Tern Place to the south/south-west which connects to Raymond Road in the north-west. Raymond Road provides straight connection west to the Forrest Highway or east to the Wilman Wadandi Highway both of which are identified as Primary Regional Road reserves in the planning framework.

			3. Is the majority of vegetation cleared, managed or Class G Grassland, within the broader landscape assessment area (e.g. clearing for residential zoned urban lots)?	Yes Large portions of the 2km wide broader landscape assessment area have been cleared of vegetation in accordance with the Urban zoning applicable under the local planning framework. Remaining land within the broader landscape assessment area is characterised by both existing rural residential subdivision and grassland paddocks associated with agricultural and farming land uses. Vegetation along the Collie River Foreshore reserve is characteristic of Class A Forest.
			4. Is the planning proposal exposed to two or less aspects with external bushfire hazards (excluding Class G Grassland)?	Yes The subject site is exposed to external bushfire hazards from the vegetation within the Collie River foreshore area only. Remaining aspects comprise Class G Grassland or excluded and developed land.
A1.1b Broader Landscape Type B	<i>The subject site is located in an area that is a Broader Landscape Type B which presents an unacceptable bushfire risk of a landscape-scale bushfire resulting in impacts to people, property and infrastructure.</i>	No	N/A – Site is within Broader Landscape Type A as demonstrated above.	

Element 2 – Siting and Design			
A2.1 Siting and design	<i>Proposed and existing lot(s) contains a sufficient development site(s) that can achieve a radiant heat impact not exceeding 29 kW/m² (BAL-29).</i>	Yes	Compliant It is important to note that proposed Lots 5-9 are partially located within the bushfire prone area mapping and are therefore the only lots that are subject to assessment against SPP3.7 and the Guidelines. In this regard, Figure 3: <i>Pre-Development Vegetation Assessment and Photo Points</i>, Figure 4: <i>Post-Development Vegetation Assessment</i> and Figure 5: <i>Bushfire Attack Level Contour Map</i> demonstrate that proposed Lots 5-9 are capable of containing a sufficient developable area within or below the BAL-29 contour. Future dwellings will also have the option of being sited outside of the bushfire prone area which will remove any requirement for construction in accordance with AS3959:2018. It is also noted that the minimum front setback under the Shire of Harvey LPS 2 is 20 metres which will also ensure that dwellings are located within or below the BAL-29 contour. Proposal meets Acceptable Solution A2.1.
A2.2 Asset Protection Zone (APZ)	<i>An indicative APZ is to be provided ensuring BAL-29 is achieved, the APZ is to be contained solely within the boundaries of the lot, and the APZ is maintained in perpetuity.</i>	Yes	Compliant Refer to A2.1 above. In the event that a new dwelling within proposed Lots 5-9 is located within the within the bushfire prone area mapping an asset protection zone may be required around the dwelling to ensure it achieves a rating of BAL-29 or lower. Proposal meets Acceptable Solution A2.2.
A2.3 Clearing of native vegetation	<i>Subdivision avoids, or where unavoidable, minimises the clearing of native vegetation</i>	Yes	Compliant The subject site does not contain any native vegetation that will require clearing. Proposal meets Acceptable Solution A2.3.
Element 3 – Vehicular Access			
A3.1 Public Roads	<i>Meet technical requirements of Appendix B.3 Table 10.</i>	Yes	Compliant

			The subject site is well connected to the existing public road network. All constructed roads are compliant with the IPWEA Subdivision Guidelines and Appendix B.3 Table 10 of the Guidelines. Proposal meets Acceptable Solution A3.1 - Public Roads.
A3.2 Access Routes	<i>Area 2: Public road access should be provided in two different directions to two different suitable destinations, with an all-weather surface.</i>	Yes	Compliant Tern Place provides direct access to Raymond Road which is a primary regional road reserve and provides connection west to the Forrest Highway and east to the Wilman Wadandi Highway. It is noted that Tern Place is an existing no-through road that was created as a result of the construction of the Wilman Wadandi Highway. In this respect, the distance from the edge of the bushfire prone area mapping to the eastern most lot is 193 metres. Having regard to this, the proposal complies with the requirements of the Guidelines (no through roads no longer than 200 metres) without the requirement for an emergency access way or an outcome-based approach. Figure Proposal meets Acceptable Solution A3.2.
A3.3a No-through roads OR A3.3b No-through road requirements	<i>Area 2: 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 public road access is to be a maximum of 200 metres from the proposed lot(s) boundary to an intersection where two-way access is provided.</i>	Yes	Compliant Tern Place is an existing no-through road that was created as a result of the construction of the Wilman Wadandi Highway. In this respect, the distance from the edge of the bushfire prone area mapping to the eastern most lot is 193 metres. Having regard to this, the proposal complies with the requirements of the Guidelines (no through roads no longer than 200 metres) without the requirement for an emergency access way or an outcome-based approach. Tern Place is provided with an existing turn around area east of the subject land which complies with the specifications of Figure 30 of the Guidelines. Proposal meets Acceptable Solution A3.3a.

A3.4 Emergency access way	Where A3.2 and A3.3 cannot be achieved.	No	N/A Not required to be assessed to A3.4 requirements.
A3.5a Perimeter roads OR A3.5b Fire service access route	<i>A perimeter road is a public road and is to be provided for greenfield or infill development where 10 or more lots are proposed</i> <i>OR</i> <i>A fire service access route is to be provided to provide firefighter access, where access is not available to the classified vegetation.</i>	Yes	Compliant The subject land adjoins grassland vegetation and therefore is not required to provide separation from the surrounding vegetation plots through the use of perimeter roads. All internal road networks accord with the minimum width (20 metres) required by Liveable Neighbourhoods. Proposal meets Acceptable Solution A3.5a.
A3.6 Battle- axe access legs	<i>For battle-axe access legs greater than 50m in length</i>	No	N/A Battle-axe legs are not proposed as part of the structure plan amendment or subdivision layout. Not assessed to A3.6.
Element 4 – Water Supply			
A4.1 Water supply for structure plans	<i>Evidence that a reticulated or sufficient and sustainable non- reticulated water supply for bushfire firefighting can be provided</i>	Yes	Compliant A reticulated water supply is available to the subject site with hydrants located within the surrounding road networks in accordance with the Water Corporation standard #63. The location of existing hydrants is shown on Figure 3: <i>Pre-Development Vegetation Assessment and Photo Points</i> . Proposal can meet Acceptable Solution A4.1.

A4.2 Water supply for subdivision applications	<i>Where a reticulated water supply is existing or proposed, a hydrant connection(s) should be provided in accordance with the specifications of the relevant water supply authority.</i>	Yes	Compliant A reticulated water supply is available and will be extended through the structure plan and subdivision area to all lots. Hydrants will be provided through the internal road network in accordance with the Water Corporation standard #63. Proposal can meet Acceptable Solution A4.2.
A4.3 Water supply for existing habitable building(s)	<i>Where subdivision includes an existing habitable building(s) that is to be retained, a hydrant connection(s) should be provided in accordance with the specifications of the relevant water supply authority.</i>	No	N/A There are no existing habitable buildings proposed to be retained within the subject site. Not required to be assessed to A4.3.

6. RESPONSIBILITIES FOR IMPLEMENTATION AND MANAGEMENT OF BUSHFIRE MEASURES

6.1 DEVELOPER – PRIOR TO ISSUE OF CERTIFICATE OF TITLES FOR NEW LOTS

NO.	IMPLEMENTATION ACTIONS
1	A notification to be placed on the certificate of title of proposed Lots 5 - 9 (inclusive) advising landowners/prospective purchasers that the lot is within a designated bushfire prone area in accordance with the model subdivision condition(s).
2	All lots within the bushfire prone area mapping are to be modified to an asset protection zone standard in accordance with Appendix B.2, Table 9: Asset Protection Zone (APZ) technical requirements of the Guidelines. This includes ensuring all grassland is reduced to 100mm or less in accordance with AS3959:2018.
3	Fire hydrants are to be constructed and thereafter maintained within the public road network in accordance with the requirements of the Water Corporation.
4	A BMP Compliance Report is to be prepared to demonstrate items 1-3 above have been satisfied prior to an application for clearance being lodged with the Shire of Harvey.

6.2 DEVELOPER - PRIOR TO SALE OR OCCUPANCY

NO.	IMPLEMENTATION ACTIONS
1	Each property owner on sale of the allotment is provided with a copy of this Bushfire Management Plan and informed of their responsibilities. A copy of this approved Bushfire Management Plan should be attached to all contracts of sale for the lot.
2	All lots within the bushfire prone area mapping are to be maintained to an asset protection zone standard in accordance with Appendix B.2, Table 9: Asset Protection Zone (APZ) technical requirements of the Guidelines. This includes ensuring all grassland is reduced to 100mm or less in accordance with AS3959:2018.

6.3 LANDOWNER – ONGOING MANAGEMENT

NO.	IMPLEMENTATION ACTIONS
1	Maintain vegetation around dwellings to an asset protection zone standard in accordance with Appendix B.2, Table 9: Asset Protection Zone (APZ) technical requirements of the Guidelines. This includes ensuring all grassland is reduced to 100mm or less in accordance with AS3959:2018. This will ensure that the BAL rating of the building does not increase over time.

7. CERTIFICATION

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level(s) stated in this document have been prepared in accordance with the requirements of AS3959:2018 and the Guidelines for Planning in Bushfire Prone Areas.

A handwritten signature in blue ink, appearing to read "Jemma Douglas".

SIGNED, ASSESSOR: DATE 1 December 2025

Jemma Douglas, Bushfire Logic

Accredited Level 2 Bushfire Practitioner (Accreditation No: 38400)

8. REFERENCES

AS3959-2018 Australian Standard, *Construction of buildings in bushfire-prone areas*, Building Code of Australia, Primary Referenced Standard, Australian Building Codes Board and Standards Australia.

Department of Fire and Emergency Services (DFES, 2023). Accessed at: DFES - Department of Fire and Emergency Services

Government of Western Australia (GoWA) (2015). *Planning and Development (Local Planning Scheme) Regulations 2015*.

Government of Western Australia (GoWA) (2012). *Building Regulations 2012*.

Government of Western Australia (GoWA) (2011). *Building Act 2011*.

Government of Western Australia (GoWA) (2005). *Planning and Development Act 2005*.

Government of Western Australia (GoWA) (1998). *Fire and Emergency Services Act 1998*.

Government of Western Australia (GoWA) (1954). *Bushfire Act 1954*.

NCC, National Construction Code (n.d.) *Building Code of Australia*. Accessed from: <https://ncc.abcb.gov.au/>

Office of Bushfire Risk management (OBRM) (2024). Map of Bushfire Prone Areas. Data retrieved from State Land Information Portal (SLIP) <https://maps.slip.wa.gov.au/landgate/bushfireprone/>

Western Australian Planning Commission (WAPC) (2024). *State Planning Policy 3.7 Bushfire*

Western Australian Planning Commission (WAPC) (2024). *Planning for Bushfire Guidelines* (September 2024) Western Australian Planning Commission and Department of Planning WA, Government of Western Australia.

APPENDIX 1: VEGETATION ASSESSMENT AND CLASSIFICATION

Site Details	
Address:	Lot 51 Raymond Road
Suburb:	Roelands
Local Government Area:	Shire of Harvey
Description of works:	Proposed subdivision application
Main BCA class of the building	N/A

Report Details		
Report Version	Assessment Date	Report Date
1	25 February 2025	1 December 2025

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.

Vegetation Plot 1				
Classification	Class G Grassland			
Exclusion Clause (if applicable)	N/A			
Effective Slope	Measured	Upslope	Applied Range (Method 1)	Upslope or flat 0 degrees
Description/Justification :	This plot contains grassland within the subject lot, including situations with shrubs and trees. Overstorey foliage is less than 10%.			
Post Development Assumptions:	Vegetation within this plot will be removed as part of the implementation of the structure plan and subdivision of the subject land.			
				
Photo ID: P1		Photo ID: P2		
				
Photo ID: P3		Photo ID: P4		

Vegetation Plot 2				
Classification	Class G Grassland			
Exclusion Clause (if applicable)	N/A			
Effective Slope	Measured	D/Slope 3-5 degrees	Applied Range (Method 1)	D/Slope >0-5 degrees
Description/Justification:	This plot is characterised as grassland, including situations with shrubs and trees. Overstorey foliage is less than 10%. This plot includes an existing tributary connecting to the Collie River.			
Post Development Assumptions:	Nil.			
				
Photo ID: P5		Photo ID: P6		
				
Photo ID: P7		Photo ID: P8		

Vegetation Plot 3				
Classification	Class G Grassland			
Exclusion Clause (if applicable)	N/A			
Effective Slope	Measured	D/Slope 8 degrees	Applied Range (Method 1)	D/Slope >5-10 degrees
Description/Justification:	This plot is characterised as grassland, including situations with shrubs and trees. Overstorey foliage is less than 10%.			
Post Development Assumptions:	Nil.			



Photo ID: **P9**

Vegetation Plot 4				
Classification	Class A Forest			
Exclusion Clause (if applicable)	N/A			
Effective Slope	Measured	D/Slope 8 degrees	Applied Range (Method 1)	D/Slope >5-10 degrees
Description/Justification:	This plot is characterised by eucalypt tree species and Agonis Flexuosa with a clear tiered structure of surface and near surface fuels including fallen branches, grasses and shrubs.			
Post Development Assumptions:	Nil.			
				
Photo ID: P10		Photo ID: P11		
				
Photo ID: P12				

Vegetation Plot 5				
Classification	Class A Forest			
Exclusion Clause (if applicable)	N/A			
Effective Slope	Measured	Flat	Applied Range (Method 1)	All upslopes and flat land (0 degrees)
Description/Justification:	This plot is characterised by eucalypt tree species and Agonis Flexuosa with a clear tiered structure of surface and near surface fuels including fallen branches, grasses and shrubs.			
Post Development Assumptions:	Nil.			



Vegetation Plot 6				
Classification	Class B Woodland			
Exclusion Clause (if applicable)	N/A			
Effective Slope	Measured	Upslope	Applied Range (Method 1)	Upslope or flat 0 degrees
Description/Justification:	This plot is characterised by eucalypts approximately 4-10 metres high with a clear grassy understory.			
Post Development Assumptions:	Vegetation on the north/north-eastern elevation of Tern Place will be modified as part of the implementation of the structure plan and subdivision to remove/reduce vegetation to a low-threat fuel.			
				
Photo ID: P14		Photo ID: P15		
				
Photo ID: P16		Photo ID: P17		

Vegetation Plot 7				
Classification	N/A			
Exclusion Clause (if applicable)	2.2.3.2 (e) Low threat vegetation – Non-vegetated area 2.2.3.2 (f) Low threat vegetation – minimal fuel condition			
Effective Slope	Measured	N/A	Applied Range (Method 1)	N/A
Description/Justification:	This plot contains private cultivated gardens associated with existing dwellings maintained in a low-threat state in perpetuity. This plot also contains areas cleared of vegetation including public road networks, existing dwellings and driveways.			
Post Development Assumptions:	Nil.			
Photo ID: P18		Photo ID: P19		
Photo ID: P20		Photo ID: P21		

Photo ID: P22	Photo ID: P23



STRUCTURE PLAN CONCEPT - 1ha

Lot 51 on DP421006
Raymond Road, ROELANDS

Plan No. | 22536-05
Date | 05/08/25
Drawn | TJ
Checked | AR
Revision | A

BUNBURY OFFICE:
21 Spencer Street,
BUNBURY WA 6230
T: 08 9792 6000
E: bunbury@harleydykstra.com.au
W: www.harleydykstra.com.au

COPYRIGHT:
This document is and shall remain the
property of HARLEY DYKSTRA.
The document may only be used for the
purpose for which it was commissioned
and in accordance with the terms of
engagement for the commission.
Unauthorised use of this document in
any form whatsoever is prohibited.

Scale | 1:2000@A3

0 20m 40m 60m



NOTE: This plan has been prepared for planning purposes. Areas, Contours and Dimensions shown are subject to survey

LEGEND



Subject Area (9.0849ha)



Underground Electricity (BYDA)



Overhead Electricity (BYDA)



Reticulated Water (BYDA)



Telecommunications (BYDA)



Reticulated Gas (BYDA)



Harley Dykstra

PLANNING & SURVEY SOLUTIONS