# Bushfire Management Plan Coversheet

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site address: | 96 Capel Drive, Capel | | | | | | |
| Site visit / date: | Yes | ✓ | No | | 9 July 2025 | | |
| Report author or reviewer: | Mike Scott | | | | | | |
| Not accredited | | Level 1 BAL assessor | | Level 2 practitioner | | Level 3 practitioner | ✓ |
| BPAD accreditation number: | 27795 | Accreditation expiry – month / year | | February | 2026 | | |
| Bushfire Management Plan - version / date: | V1.0 | 28 January 2025 | | | | | |

| **If one or more of the following responses are yes, 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 | ✓ | |

| **If one or more of the following responses are yes, 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 | | ✓ |

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:

| | | |
|---|---|---|
| Dated signature of report author or reviewer: |  | 21 October 2025 |

BUSHFIRE PRONE PLANNING

**Mixed use development - Capel**

# Bushfire Management Plan

(PREPARED FOR PLANNING APPLICATION ASSESSMENT PURPOSES)

Compiled in accordance with State Planning Policy 3.7 Bushfire and the Planning for Bushfire Guidelines

**Lot 12, 28 & 165 (96) Capel Drive, Capel**

**Shire of Capel**

**Development Application - Vulnerable Land Uses**

**21 October 2025**

**Job Reference No: 180774**

BPP GROUP PTY LTD T/A BUSHFIRE PRONE PLANNING

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## DOCUMENT CONTROL

| PREPARATION | | |
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| Reviewed: | Mike Scott (BPAD Level 3 No. 27795) |  |

| VERSION HISTORY | | |
|---|---|---|
| Version | Status/Details | Date |
| 1.0 | Original | 21 October 2025 |
| - | - | - |

**DISTRIBUTION**

| Destination | | Version | No. Copies | Hard Copy | Electronic Copy |
|---|---|---|---|---|---|
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| Janine Marsh | janinem@doepelmarsh.com.au | 1.0 | | ☐ | ☒ |
| | | - | | ☐ | ☐ |
| | | | | ☐ | ☐ |

## LIMITATIONS AND DISCLAIMER

***Management of Risks Associated with Bushfire***

*For the subject planning proposal, the protection measures to be implemented based on information presented in this Bushfire Management Plan, prepared for land-use planning purposes, are the minimum requirements for management of the relevant risks.*

*The applied protection measures do not guarantee that during a bushfire event, no buildings or infrastructure will be damaged, persons injured, or fatalities occur - either on the subject site or off the site when evacuating.*

*This is substantially due to the unpredictable nature of fire weather conditions, bushfire behaviour and the actions of landowners and/or operators – including the correct implementation and ongoing maintenance of required and recommended protection measures (including bushfire resistant construction) and complying with public bushfire warnings and directions from emergency services - over which Bushfire Prone Planning has no control.*

***Provision of Mapping Data***

*All maps included herein are indicative in nature and are not to be used for accurate calculations. This data has been prepared for bushfire risk management planning purposes only. All depicted areas, contours and any dimensions shown are subject to survey.*

*Bushfire Prone Planning does not guarantee that this data is without flaw of any kind and disclaims all liability for any errors, loss or other consequence arising from relying on any information depicted.*

*When the separate provision of Digital Geographic Data (GIS Files) is an agreed project deliverable, these should be used in conjunction with the relevant information presented in the associated report. Areas and/or Dimensions specified in the report will have priority over digital data transmitted and must correspond to the final 'as-built' location of the applicable buildings, other structures or boundaries.*

***Bushfire Prone Planning's Liability***

*All surveys, forecasts, projections and recommendations made in this report, associated with the subject planning proposal, are made in good faith based on information available to Bushfire Prone Planning at the time.*

*Notwithstanding anything contained therein, Bushfire Prone Planning will not, except as the law may require, be liable for any loss or other consequences whether or not due to the negligence of their consultants, their servants or agents, arising out of the services provided by their consultants.*

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## LIST OF FIGURES

# STATEMENT OF PURPOSE – THE 'PLANNING' BUSHFIRE MANAGEMENT PLAN

**EXPLANATORY INFORMATION**

**SITE/USE PLANNING**

This BMP is produced to present the information necessary for a planning proposal's assessment against the State's bushfire planning requirements. The developed information is to inform and assist decision-making authorities, planners, landowners/proponents and referral agencies in their implementation WA's State Planning Policy 3.7 Bushfire – and where relevant, any supplementary provisions of a local planning scheme or policy.

| | | | | |
|---|---|---|---|---|
| **Policy Document Versions Applied in This BMP** | State Planning Policy 3.7 Bushfire (SPP 3.7) | November 2024 | Planning for Bushfire Guidelines (supporting SPP 3.7) | November 2024 |

> The Stated Intent of SPP 3.7 is to *implement effective, risk based land use planning and development which in the first instance avoids bushfire risk, but where unavoidable, manages and/or mitigates the risk to people, property and infrastructure to an acceptable level. The preservation of life and the management of bushfire impact are paramount.*

**SITE OPERATIONS**

This BMP is not an 'operational' BMP for property and operations management. Such a BMP would apply additional and more specific bushfire protection measures to more comprehensively reduce the level of risks associated with a bushfire event. These being the potential loss of life, injury, or destroyed or damaged assets which results in personal loss and economic loss.

However, this 'planning' BMP does establish certain responsibilities for the implementation and maintenance of the bushfire protection measures that are considered the minimum for bushfire planning decision making.

**BUSHFIRE RESISTENT CONSTRUCTION**

This 'planning' BMP is not required to consider the requirement to construct certain buildings, in designated bushfire prone areas, to the standard corresponding to the Bushfire Attack Level (BAL) they are subject to. This requirement is dealt with under the State Building Act 2011/Building Regulations 2012 and the referenced Building Code of Australia.

**DETERMINED BUSHFIRE ATTACK LEVEL (BAL) RATINGS AND CONSTRUCTION – CAUTION!**

For construction purposes a determined (not indicative) BAL rating is required to be known and a BAL Certificate produced for submission with a building application. This establishes the construction design and materials that are to be complied with in accordance with AS 3959 Construction in bushfire prone areas (as amended) and/or NS 300 NASH Standard Steel Framed Construction in Bushfire Areas (as amended).

This 'planning' BMP cannot necessarily determine a BAL rating that will apply to a future building. All variables required for that calculation may not be known at the assessed stage of planning. For example, actual location of a building footprint on a lot and/or any classified vegetation that will remain, at the time of construction, within the lot or on neighbouring lots.

This 'planning' BMP is only required to identify if a viable sized building can be located on a lot and be subject to a BAL rating not exceeding BAL-29, based on certain allowable assumptions. This is a planning requirement not a building requirement and a BAL contour map can be used to illustrate this information as an 'indicative' BAL rating.

**Be aware that typically you cannot derive the determined BAL rating for a future building(s) on a specific lot from a BAL contour map (when presented in a BMP prepared for planning approval purposes). This is only possible in limited circumstances.**

**Planning assessment requirements are different to building assessment requirements. Refer to explanatory information above and Appendix B1 and B2 for additional information.**

# 1 THE PLANNING PROPOSAL

## 1.1 Details, Plans and Maps

| SUBJECT LAND AND PROPONENT (LANDOWNER) | | |
|---|---|---|
| Address Details | Lot 12, 28 & 165 (96) Capel Drive, Capel | |
| Applicable Local Government | Shire of Capel | |
| Proponent | Ocean Gardens PTY LTD | |
| Entity Commissioning Production of the BMP | Doepel Marsh Architects | |
| **THE PLANNING PROPOSAL STAGE AND TYPE** | | |
| Strategic Planning Document | ☐ | N/A |
| Structure Plan | ☐ | N/A |
| Subdivision Application | ☐ | N/A |
| Development Application | ☑ | Construction of a habitable building and/or a vulnerable use that is subject to bushfire planning requirements. |

**DESCRIPTION**

The development proposal involves the construction of three types of development. This includes short stay accommodation units, an over-55s lifestyle village (including an incidental clubhouse) and a commercial building with residential apartments in the upper storeys. The lot will also retain the existing Capel Tavern. All development types have been considered within this BMP.

The proposed commercial building and the residential apartments above are to be developed on a separate lot, Lot 12. Figure 3.1 shows the existing classified vegetation prior to development, while Figure 3.2 (pre-development contour map) indicates that the proposed commercial development is located within an area subject to BAL-12.5. In accordance with the State Guidelines, a response to the Commercial/Industrial Bushfire Protection Criteria (BPC) is not required.

The over 55's lifestyle village has been assessed under the Residential BPC in Section 5.3 and the short stay accommodation has been assessed under the Vulnerable Tourism land use BPC in Section 5.4.

Primary Proposed or Intended Construction

**EXPLANATORY INFORMATION**

Note: A habitable building is defined in the WA *Planning and Development (LPS) Regulations 2015* to mean:

A permanent or temporary structure on land that:

(a) Is fully or partially enclosed; and

(b) Has at least one wall of solid material and a roof of solid material; and

(c) Is used for a purpose that involves the use of the interior of the structure by people for living, working, studying or being entertained.

| | | |
|---|---|---|
| Primary Type(s) | New Building(s) | New Building(s) |
| BCA Classification | Class 1a (house) | Class 2 (apartments) |

| Vulnerable Land Use Determination | |
|---|---|
| Applying the definition established in SPP 3.7: | |
| • A land use which is designed to accommodate people who are less physically or mentally able and likely to present evacuation challenges; and/or | ☑ |
| • A land use which due to the building design or use, or the number of people accommodated, likely to present evacuation challenges; and/or | ☐ |
| • A land use which involves visitors who are unfamiliar with the surroundings. | ☑ |
| In applying the Guidelines, Appendix B5 and DPLH officer level advice, consideration is also given to: | |
| • The location and to the number of employees and visitors on-site at any one time; and | ☑ |
| • If the decision-maker considers that the preparation of a bushfire emergency plan is warranted, then the use should be considered vulnerable. | ☐ |
| • Grouped dwellings for older persons (e.g. Lifestyle / over 55's) where there is no nursing care component, may not need to be considered a vulnerable use (including when a Class 3 but not a Class 9c building). | ☐ |
| Assessment Supporting Details:<br>None Required | |

| Development Type - Establishing the Applicable Bushfire Protection Criteria | | | |
|---|---|---|---|
| Residential | Construction of, or addition to, a habitable building, including a single house, ancillary dwelling, grouped dwelling, multiple dwelling or mixed used development. Includes an associated Class 10A building or deck (non-habitable) within 6 m of the habitable building. *[Guidelines s6]* | | |
| Commercial and Industrial | Construction of or addition to, a habitable building for commercial or industrial uses. *[Guidelines s7]* | | |
| Vulnerable Tourism Land Use and Day Uses | For the construction, and/or use of, or additions to a habitable building for a vulnerable tourism land use. *[Guidelines s8]* | Tourist and visitor accommodation. | ☑ |
| | | Day Uses (no overnight stay) | ☐ |
| | | Outdoor Events (may include overnight camping). | ☐ |
| | | Caravan Park, nature based park and/or camping ground, with or without a habitable building(s). | ☐ |
| Assessment Supporting Details:<br>None required. | | | |


## LEGEND

- EXISTING TREE TO BE RETAINED
- NEW TREE

- LEASE AREA OF TAVERN
- SHORT STAY ACCOMMODATION (3 STOREY RIVERSIDE)
- SHORT STAY FACILITIES
- SHORT STAY ACCOMODATION (3 STOREY TAVERN SIDE)
- LOT 12
- OVER 55 ACCOMMODATION
- OVER 55 CLUBHOUSE
- HIGH VOLTAGE OVER HEAD POWER (3M SETBACK)
- SITE BOUNDARY
- SEWER LINE
- FLOOD LINE
- LOW SECURE FENCELINE FOR OVER 55 VILLAGE (IN PLANTING)

1. TAVERN CARPARK
2. EXISTING TAVERN
3. SHORT STAY PARKING
4. PEDESTRIAN RESIDENT ACCESS
5. VEHICLE RESIDENT ACCESS (SECURE GATE)
6. ENTRY SIGN
7. OVER 55 COVERED RESIDENT PARKING AREA
8. OVER 55 VISITORS PARKING
9. WASTE BIN AREA
10. PETANQUE
11. VIEWING DECK
12. RESIDENT ONLY CARAVAN & BOAT PARKING
13. 2 X STOREY SHORT STAY APARTMENT (RIVER SIDE)
14. 3 X STOREY SHORT STAY APARTMENT (RIVER SIDE)
15. 3 X STOREY SHORT STAY APARTMENT (TAVERN SIDE)
16. 3/2 X STOREY OVER 55 APARTMENT
17. 2 X STOREY OVER 55 CLUBHOUSE
18. LOT 12 MIX USE DEVELOPMENT
19. HERITAGE STABLES

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PROJECT NAME
**MIXED USE DEVELOPMENT - CAPEL**
ADDRESS
**LOT 12, 28 & 165 CAPEL DRIVE, FORREST & ROE ROAD**

PROJECT STATUS
**PRELODGEMENT WAPC**
DATE
**14/10/2025 12:49:50 PM**

TITLE
**PROPOSED MASTERPLAN**
0 5 10 20 50 100m
SCALE 1:500

**24.034**
**DA100**
**A**

*Figure 1.2*

# Location Map

Lot 28 on Plan 222236, Area: 3.3539ha
96 Capel Drive,
Capel
SHIRE OF CAPEL

**------ LEGEND ------**

- Subject Site

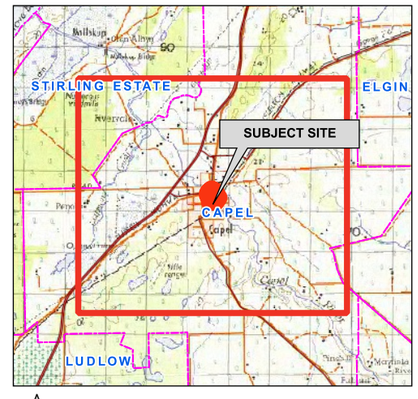
**DFES Stations**

- Bush Fire Brigade
- Reserves

0 250 500 750 1,000

Metres

**------ LOCALITY ------**




AERIAL IMAGERY: Landgate/SLIP

Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Merctaor Units: Metre
Map by: Joy 07-10-2025
SCALE (A3): 1 : 20000

BUSHFIRE PRONE PLANNING

## 1.2 The Planning Proposal and its Requirement to Address Bushfire Risk

**EXPLANATORY INFORMATION**

For the subject planning proposal, the intent of this section is to:

- Identify the relevant statutory bushfire planning provisions that have established its requirement to address bushfire risk;
- Identify the relevant policy/guideline 'triggers' to apply SPP 3.7 Bushfire;
- Identify when a local government, as the decision maker, has established additional 'triggers' to apply defined bushfire planning assessments; and
- Identify the consideration of any relevant exemptions from application of SPP 3.7 Bushfire.

**Relevant Terms**

Development means the development or use of any land, including (a) any demolition, erection, construction, alteration of or addition to any building or structure on the land (b) the carrying out on the land of any excavation or other works (Planning and Development Act 2005, Part1, s.4; and

Habitable building means a permanent or temporary structure on land that:

(a) is fully or partially enclosed; and

(b) has at least one wall of solid material and a roof of solid material; and

(c) is used for a purpose that involves the use of the interior of the structure by people for living, working, studying or being entertained;

Specified building means a structure of a kind specified in this Scheme as a kind of structure to which this Part applies in addition to its application to habitable buildings.

Development site means that part of a lot on which a building that is the subject of development stands or is to be constructed - Planning and Development (LPS) Regulations 2015, s.78A.

Construction of a building includes the erection, assembly or placement of a building but does not include the renovation, alteration, extension, improvement or repair of a building;

### 1.2.1 Applied Statutory Bushfire Provisions Requiring a Planning Application

**A A PLANNING APPLICATION or A BUILDING APPLICATION IS TO BE SUBMITTED TO THE LOCAL GOVERNMENT FOR DETERMINATION**

For the proposed development (construction and/or use) the local government is the decision maker. The local government determination will be made under:

- The Planning and Development Act 2005, its relevant subsidiary legislation (e.g. Regulations) and associated policies that establish the objectives and high-level guidance; and/or
- The local government's local planning scheme and associated policies that establishes objectives and guidance, specific to the jurisdiction, in addressing the requirements established by the above legislation and associated policy.

### 1.2.2 Applied Triggers to Apply State Planning Policy 3.7 Bushfire

**EXPLANATORY INFORMATION**

*State Planning Policy 3.7 Bushfire (SPP 3.7)* provides broad objectives and high-level guidance for how planning proposals and development applications within bushfire prone areas should be considered. Implementation is supported by more detailed instructions within the *Planning for Bushfire Guidelines*.

The following table identifies the guidance that has resulted in the planning proposal being required to apply SPP 3.7.

**Inconsistent Information (as of December 2024):**

- There are inconsistences between the provisions of the applicable legislation (Planning and Development (LPS) Regulations 2015), the clauses of the associated policy (SPP 3.7 Bushfire) and its associated guidance (Planning for Bushfire Guidelines Nov. 2024).
- This has resulted in inconsistencies in the establishment of the 'triggers' to lodge proposals, plans and applications for planning approval sourced from these documents.

Until legislation/policy/guideline amendments are completed, the advice from WAPC/DPLH is that the decision maker should apply SPP 3.7 and the Guidelines as they deem necessary. *(Source: Explanatory Note SPP 3.7, DPLH, 25/11/24)*

**Bushfire Prone Planning's Current Approach:**

- To apply the 'triggers' for application of SPP 3.7/Guidelines in accordance with the current version of the Guidelines (Planning for Bushfire Guidelines, November 2024), in Sections 6, 7 and 8 - as this is best aligned with the current version (3 Nov 2024) of the LPS Regulations 2015; unless
- The relevant decision maker has determined, and confirmed in writing to the proponent, that SPP 3.7/Guidelines is to be applied.

| SPP 3.7 AND THE GUIDELINES - ESTABLISHING THE NEED TO GIVE DUE REGARD TO SPP 3.7 | | APPLICABLE |
|---|---|---|
| 1 | THE LAND SUBJECT TO THE PLANNING PROPOSAL IS: | |
| | Designated bushfire prone and 'Area 1 (Urban)' on the Map of Bushfire Prone Areas (refer to Figure 1.4); or | No |
| | Designated bushfire prone and 'Area 2' on the Map of Bushfire Prone Areas (refer to Figure 1.4). | Yes |
| AND | | |
| 2 | THE PLANNING PROPOSAL WILL: | |
| | Result in the intensification of development (or land use); or | Yes |
| | Result in an increase of visitors, residents or employees; or | Yes |
| | Adversely impact or increase the bushfire risk to the subject or surrounding site(s). | No |
| AND | | |
| 3 | THE PLANNING PROPOSAL IS A: | |
| | (Source: SPP 3.7, Part 4) A development application for construction and/or use of a habitable building (other than a single house or ancillary dwelling), for a vulnerable land use and where the development site(s) has a BAL rating above BAL-LOW. | Currently not triggered by legislation - BUT – the relevant decision-maker has established the requirement to apply SPP 3.7 |
| | (Source: Guidelines s.6) A development application for construction of or additions to a habitable building, including a single house, ancillary dwelling, grouped dwelling, multiple dwelling or mixed-use | |

| | |
|---|---|
| | development, where the habitable building has a pre-development radiant heat impact exceeding 29kW/m² (BAL-40 or BAL-FZ) and designated as Area 1 (Urban) or Area 2 on the Map of BPA.<br>An application for additions to a habitable building to which SPP 3.7 and these Guidelines apply, is required to address the bushfire protection criteria for the entire site. It should be noted that there are no requirements under SPP 3.7 or the Guidelines to retrofit existing buildings to the appropriate bushfire construction standard, or any requirement for these existing buildings to be located within an area with a radiant heat impact not exceeding 29 kW/m² (BAL-29). |
| | (Source: Guidelines s.8) This section applies to development applications in areas designated as Area 1 (Urban) or Area 2 on the Map of BPA for the construction and/or use of, or additions to:<br>o A habitable building for:<br>- A vulnerable commercial or industrial land use;<br>- A vulnerable Class 9 building identified within the 2022 edition of the Building Code of Australia (BCA); or<br>- A vulnerable tourism land use.<br>o A caravan park, nature-based park and/or camping ground, with or without a habitable building(s).<br>Note: A development application for additions to a vulnerable land use should address the bushfire protection criteria for the entire site. It should be noted that there are no requirements under SPP 3.7 or the Guidelines to retrofit existing buildings to the appropriate bushfire construction standard, or any requirement for these existing buildings to be located within an area with a radiant heat impact not exceeding 29 kW/m² (BAL-29). |
| Assessment Supporting Details:<br>The application involves commercial, short-term accommodation and residential components which are habitable buildings proposed within a bushfire prone area. Short term accommodation represents a habitable building (vulnerable use) and therefore the Bushfire Management Plan has been prepared for the entire site. | |

### 1.2.3 Applied Triggers Established by the Local Government as the Decision Maker

**EXPLANATORY INFORMATION**

The applicable local government is required to give due regard to the following:

The Deemed Provisions in Schedule 2 of the Planning and Development (Local Planning Schemes) Regulations 2015, where:

- Part 2 cl. 3 provides for the local government to prepare a local planning policy; and
- Part 9 cl. 67(q & r) establishes the local government must give due regard to:
  - The suitability of the land for the development taking into account the possible risk of flooding, tidal inundation, subsidence, landslip, bush fire, soil erosion, land degradation or any other risk.
  - The suitability of the land for the development taking into account the possible risk to human health or safety.

Under these general provisions, in addition to the specific statutory bushfire provisions identified in Section 1.2.1, the local government may have bushfire planning policy/information (under the local planning scheme) which is to be addressed in this BMP. This is identified below as relevant.

| ESTABLISHING THE NEED TO APPLY LOCAL GOVERNMENT DEFINED BUSHFIRE PLANNING REQUIREMENTS | |
|---|---|
| Identification of the Relevant Instrument | Local Planning Policy |

RELEVANT DETAILS OF LOCAL PLANNING BUSHFIRE POLICY

The subject lots are subject to SCA8 under the Shire of Capel Local Planning Scheme No.8 which ensure that land use and development within its boundaries are regulated and managed to protect significant ecological linkages, foreshore environments, biodiversity and environmental quality. Under this provision the decision maker may require a landowner to produce and implement a Foreshore Management Plan and Bushfire Management Plan to the satisfaction of the local government.

The Capel River Foreshore is recognised within the Greater Bunbury Region Scheme. Noting the subject site is zoned Urban with components of the lot zoned as Regional Open Space (Reserve) and Waterways (Reserve).

RELEVANT DETAILS OF THE LOCAL PLANNING BUSHFIRE INFORMATION

The Shire of Capel Bushfire Mitigation Notice outlines each landowner's obligations to reduce the bushfire risk. Relevant information includes the description of a low fuel zone and firebreaks.

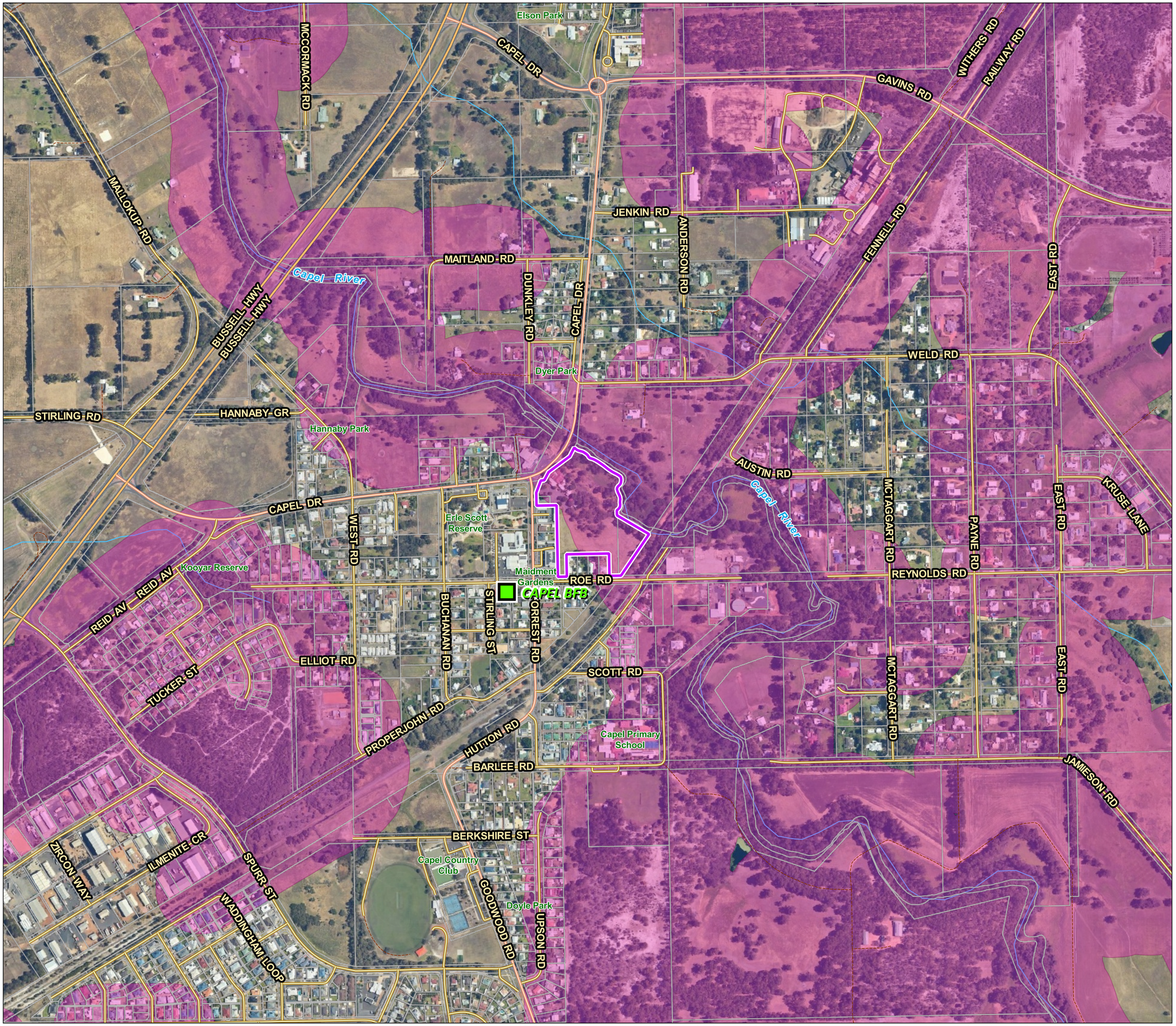
### 1.2.4 Identified Exemptions

| **EXPLANATORY INFORMATION**<br>The following situations provide for an exemption from the application of SPP 3.7/Guidelines. They are established by the stated sources and are presented below as:<br>• Evidence they have been considered when relevant; and<br>• Justification for the application of SPP 3.7/Guidelines despite a relevant exemption applying to part or all of the planning proposal. | |
|---|---|
| EXEMPTION SCENARIOS | APPLICABLE |
| (Source: LPS Regulations 2015 Part 10A - Bushfire risk management) Does not apply to land where there is no existing local planning scheme or where a local planning scheme has ceased to have legal effect. | No |
| (Source: Guidelines s1.2.1) For a structure plan or subdivision application, for proposed lot(s) that:<br>• Are not designated as bushfire prone;<br>• Or where there is no increase in the development potential and therefore no intensification of land use or bushfire risk, such as a boundary realignment, that does not restrict the ability to establish or maintain an APZ; and<br>• does not restrict vehicular access to any existing or future habitable building. | No |
| (Source: Guidelines s1.2.1) - For incidental non- habitable buildings or structures located not less than six metres from the habitable building, including but not limited to private garages, carports, patios, storage sheds, outbuildings, swimming pools, spa pools and fences. | No |
| (Source: Guidelines s1.2.1) - For a change of use, minor renovations, extensions, alterations, improvements or repair of an existing habitable building where:<br>• The application does not result in an increase of occupants onsite; and/or<br>• There is no increase in the bushfire risk, such as an extension being further away from the bushfire hazard, or the extension does not restrict vehicular access or the provision of water for the development. | No |
| Assessment Supporting Details:<br>None required. | |

*Figure 1.3*

# Bushfire Prone Area

Lot 28 on Plan 222236, Area: 3.3539ha
96 Capel Drive,
Capel
SHIRE OF CAPEL




0 100 200 300 400

Metres

**------ LEGEND ------**

- Subject Site
- Cadastral

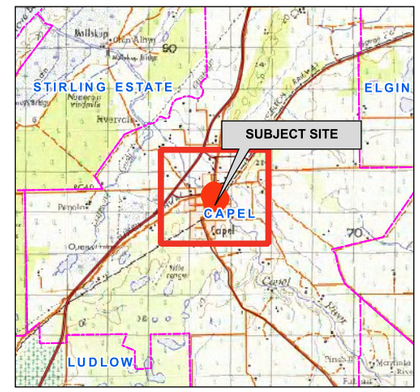
**Bushfire Prone Area 2024 OBRM_023**

- Bushfire Prone Area 2

**DFES Stations**

- Bush Fire Brigade

**------ LOCALITY ------**




AERIAL IMAGERY: Landgate/SLIP

Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Merctaor Units: Metre
Map by: Joy 16-10-2025
SCALE (A3): 1 : 8000

BUSHFIRE PRONE PLANNING

## 1.3 Required 'Bushfire Planning' Assessments and Documents

| INFORMATION PRESENTED IN THIS 'PLANNING' BMP (OR THE BEP) - PROVIDED TO ACCOMPANY THE PROPONENT'S PLANNING SUBMISSION | | | | | | |
|---|---|---|---|---|---|---|
| The requirements are established by SPP 3.7 Part 4, Guidelines Section 1.2, 4.4, 5.5, 6.4, 7.2, 8.3 and A1.2. The green highlighted column identifies the required information for the subject planning proposal. | | Strategic Planning Document | | Structure Plan / Subdivision Application | | Development Application |
| Required Information | Details | Map of Bushfire Prone Areas Designation | | | | |
| | | Area 1 (Urban) | Area 2 | Area 1 (Urban) | Area 2 | Areas 1 & 2 |
| **Environment** - Identification of environmental, biodiversity or conservation values on subject site(s) | Presented in the BMP. Identifies how proposal siting and design avoids and/or minimises clearing of native vegetation in applying required bushfire protection measures. | BUSHFIRE PLANNING ASSESSMENTS ARE NOT REQUIRED | ✓ | ✓ | ✓ | ✓ |
| **BLA** - Broader Landscape Assessment (see note below) | Presented in the BMP. Considers subject site suitability based on exposure to bushfire hazards, potential for landscape scale bushfire, road network and suitable evacuation destinations. | | ✓ | - | ✓ | - |
| **BHL** - Bushfire Hazard Level Assessment (pre-development) | Presented in the BMP. Can include detail of treatments required to achieve BHL of moderate and/or low. | | ✓ | - | - | - |
| **BAL** - Bushfire Attack Level Assessment | Presented in the BMP in BAL contour map format as a requirement and in table format as an additional option. | | - | ✓ | ✓ | - |
| | Presented in the BMP in table format and/or BAL contour map format – dependant on which is more efficient and effective at presenting the results (e.g. BAL contour map for multiple buildings). | | - | - | - | ✓ |
| **BPC** - Assessment against the relevant Elements (E1 – E4) of the Bushfire Protection Criteria | Presented in the BMP. Strategic planning will necessarily focus on Element 1: Location. Can demonstrate compliance using acceptable solutions and/or an outcomes-based approach. | | ✓ | ✓<br>**Excluding E1** | ✓ | ✓<br>**Excluding E1** |
| **BEP** - Bushfire Emergency Plan | For vulnerable land uses only. Provided as a separate document or an addition / modification to an existing BEP or site Emergency Management Plan. | | - | - | - | ✓ |
| **LMP** – Landscape Management Plan | For vulnerable land uses only. Provided as a separate document or an addendum to the BMP. | | | | | |
| Note: Where a relevant planning proposal (e.g. subdivision) was previously assessed and approved under the SPP 3.7/Guidelines 2015, it is likely that a BLA will not be required. Also, if an application (e.g. subdivision) is compliant with a structure plan and/or a local planning scheme amendment, which were assessed and approved under the 2015 SPP/Guidelines, it is likely that a BLA will not be required. Confirmation from a relevant DPLH officer may be required (DPLH advice to BPP 20/2/2025). | | | | | | |

## 1.4 Other Documents Relevant to Preparing the BMP

**EXPLANATORY INFORMATION**

This section identifies any known assessments, reports or plans that have been conducted and prepared previously, or are being prepared concurrently, and are relevant to the subject planning proposal.

They may have implications for the assessment of bushfire hazard threats and the identification and implementation of the bushfire protection measures that are established by this BMP.

**RELEVANT DOCUMENTS**

| Document | Relevant | Exists | To Be Concurrently Developed | Copy Provided by Proponent / Developer | Title |
|---|---|---|---|---|---|
| Structure Plan | No | N/A | N/A | N/A | - |
| Bushfire Management Plan | Yes | Yes | No | N/A | 180775 – 96 Capel Drive Capel (BMP) v1.0. This BMP |
| Preliminary bushfire advice (may include a BAL contour map) | Yes | Yes | No | N/A | 180775 – SV&A Capel Drive, Capel. |
| Implications for the BMP: Assisting in locating buildings to achieve <BAL-29 | | | | | |
| Bushfire Emergency Plan | Yes | Yes | No | N/A | 180775 – 96 Capel Drive Capel (BEP) v1.0. |
| Implications for the BMP:<br>Developed concurrently with this BMP to satisfy the BPC. | | | | | |
| Bushfire Risk Report | No | N/A | N/A | N/A | - |
| Environmental Asset or Vegetation Survey | Yes | - | - | No | - |
| Refer to Section 2.1 for details. | | | | | |
| Landscape Management Plan | Yes | No | Yes | No | - |
| Refer to Section 2.3 for details. | | | | | |
| Revegetation Plan | No | N/A | N/A | N/A | - |

# 2 ENVIRONMENTAL CONSIDERATIONS – NATIVE VEGETATION

**EXPLANATORY INFORMATION**

Some bushfire prone areas also have high biodiversity values. SPP3.7 objective 5.4 prioritises the retention of native vegetation for biodiversity conservation, environmental protection and landscape amenity.

Clearing or modification of native vegetation for the purpose of land use or development is assessed under **State Planning Policy 2: Environment (SPP 2), State Planning Policy 2.8: Bushland policy for the Perth Metropolitan Region (SPP 2.8)** and relevant environmental legislation. A key objective of these polices is to avoid development that may result in unacceptable environmental damage.

Any 'modification' or 'clearing' of vegetation to reduce bushfire risk is considered 'clearing' under the ***Environmental Protection Act 1986*** (EP Act) and requires a clearing permit under the ***Environmental Protection (Clearing of Native Vegetation) Regulations 2004*** (Clearing Regulations) – unless for an exempt purpose.

Clearing native vegetation is an offence, unless done under a clearing permit or the clearing is for an exempt purpose. Exemptions are contained in the EP Act or are prescribed in the Clearing Regulations (note: these exemptions do not apply in environmentally sensitive areas).

The ***Department of Water and Environmental Regulation*** (DWER) is responsible for issuing 'clearing' permits and the framework for the regulation of clearing. Approvals under other legislation, from other agencies, may also be required, dependent on the type of flora or fauna present.

**Local Planning Policy or Local Biodiversity Strategy:** Natural areas that are not protected by the above Act and Regulation (or any other National or State Acts) may be protected by a local planning policy or local biodiversity strategy. Permission from the local government will be required for any modification or removal of native vegetation in these Local Natural Areas (LNA's). Refer to the relevant local government for detail.

For further Information refer to Native vegetation clearing permits | Western Australian Government, the Planning for Bushfire Guidelines (as amended) and the Bushfire and Vegetation Factsheet - WAPC, Dec 2021.

## 2.1 Biodiversity or Conservation Values Identified

**EXPLANATORY INFORMATION**

The required information, relevant to bushfire planning and informing the production of this BMP, is sourced and presented as indicated below.

*Note that where a 'desktop' assessment has been conducted, this should not be considered a replacement for a full Environmental Impact Assessment. It is a summary of potential biodiversity or conservation values at the subject site, inferred from information contained in public available datasets and/or reports, which are only current to the date of last modification.*

*The information provided in the BMP should be considered indicative where the subject site has not previously been subject to a site-specific environmental assessment by an appropriate professional.*

| | |
|---|---|
| The required information is sourced from the environmental/planning consultant report developed for the subject site and provided to the bushfire consultant (details below when applicable).<br>The information it contains is not repeated in this BMP as it will accompany the planning submission. The implications for the subject planning proposal and this BMP are stated below when relevant. | No Report Available / Provided |
| The required information is sourced by the bushfire consultant as a 'desktop' assessment from publicly available data bases and/or a local government's local biodiversity strategy or local planning strategy.<br>When applicable, this information is presented on the following pages of this BMP. | Yes - Fully |

| IDENTIFICATION OF RELEVANT BIODIVERSITY OR CONSERVATION VALUES | | | | | | | |
|---|---|---|---|---|---|---|---|
| Dataset | Relevant to Subject Planning Proposal | Influence on Bushfire Threat Levels and / or Application of Bushfire Protection Measures | Information Source(s) Applied | | | | Further Action Required by Proponent |
| | | | WA Govt. Agency Dataset (ID) | | Landowner or Developer Statements | Environmental Asset or Vegetation Survey Report | |
| Department of Biodiversity, Conservation and Attractions (DBCA) Datasets | | | | | | | |
| Conservation Category Wetlands and Buffer (geomorphic wetlands – relevant area) | Yes | Yes - Moderate | ☒ | DBCA-019 | ☐ | ☐ | Confirm with relevant agency |
| RAMSAR Sites (wetlands of international importance) | N/A | No | ☒ | DBCA-010 | ☐ | ☐ | None |
| Threatened and Priority Flora | Unlikely | Unlikely | Restricted Scale of Data Available (security) | DBCA-036 | ☐ | ☐ | Data not available - confirm with relevant agency |
| Threatened Ecological Communities | Unlikely | Unlikely | | DBCA-038 | ☐ | ☐ | Data not available - confirm with relevant agency |
| Legislated Lands and Waters (national/conservation parks, nature/crown reserves, state forest) | Yes | No | ☒ | DBCA-011 | ☐ | ☐ | None |
| Department of Planning, Lands and Heritage (DPLH) Datasets | | | | | | | |
| Bush Forever Areas 2000 | N/A | No | ☒ | DPLH-019, 022 and MRS Bush Forever | ☐ | ☐ | None |
| Department of Water and Environmental Resources (DWER) Datasets | | | | | | | |
| Clearing Regulations – Environmentally Sensitive Areas | N/A | No | ☒ | DWER-046 | ☐ | ☐ | None |
| Swan Bioplan Regionally Significant Natural Areas 2010 | N/A | No | ☒ | DWER-070 | ☐ | ☐ | None |

## ADDITIONAL INFORMATION

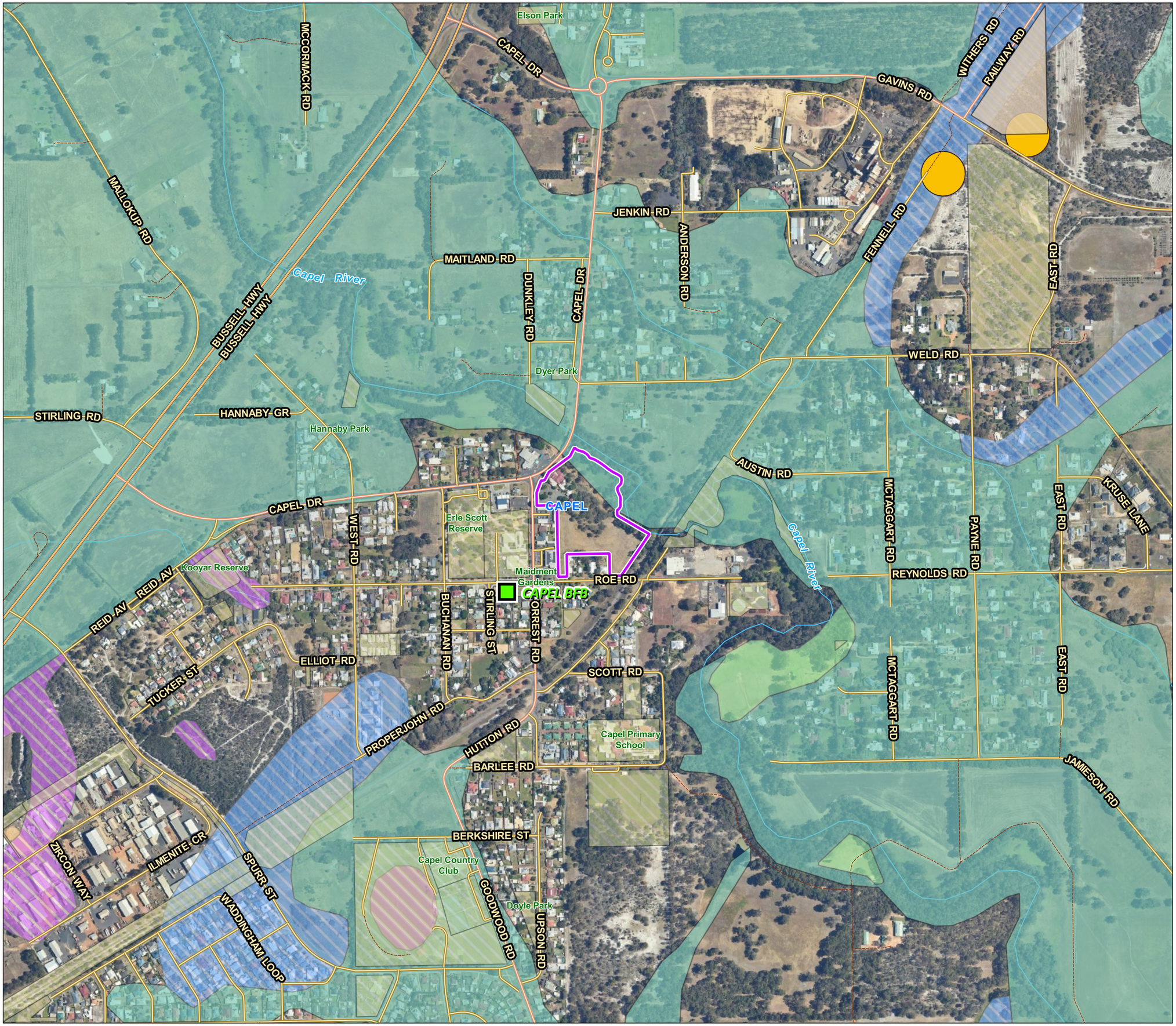
Mapping of conservation category wetlands (refer to Figure 2.1), show areas of Palusplain within the subject site. As this area requires modification to existing vegetation, it is recommended that the environmental impact be discussed with the decision maker.

Mapping of Environmentally Sensitive Areas (refer to Figure 2.1), from the information sourced in the DWER-046 dataset, indicates an ESA exists within the area. The accuracy of this data and consequently its application to the subject site, should be confirmed with the relevant local government authority and/or state agency.

*Figure 2.1*

# Environmental Considerations

Lot 28 on Plan 222236, Area: 3.3539ha
96 Capel Drive,
Capel
SHIRE OF CAPEL




0 100 200 300 400

Metres

## ------ LEGEND ------

- Subject Site

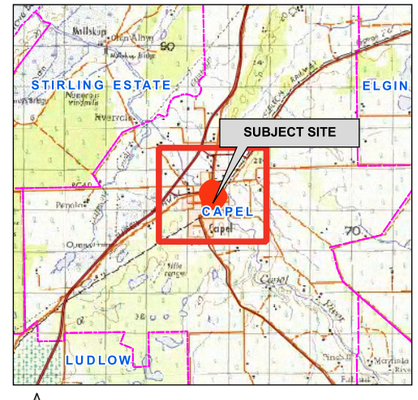
**DFES Stations**
- Bush Fire Brigade
- Reserves

**Environmentally Sensitive Areas**
- Declared Rare Fauna

**DBCA Legislated Lands and Waters**
- Nature Reserve

**Geomorphic Wetlands Swan Coastal Plain**
- Dampland
- Floodplain
- Palusplain
- Sumpland

## ------ LOCALITY ------




AERIAL IMAGERY: Landgate/SLIP

Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Merctaor Units: Metre
Map by: Joy 07-10-2025
SCALE (A3): 1 : 8000

BUSHFIRE PRONE PLANNING

## 2.2 Response of the Planning Proposal to Protection of Native Vegetation

The protection of native vegetation is to be prioritised by avoiding areas that would require clearing or modification of native vegetation, specifically for the purpose of bushfire mitigation (BMP Manual, November 2024 DPLH).

| SOLUTIONS APPLIED TO MINIMISE NATIVE VEGETATION REMOVAL / MODIFICATION | |
|---|---|
| Clearing and/or modification of native vegetation is proposed and necessary. | Yes |
| Proposed Clearing:<br>Clearing of grass and some 'Class B – Woodland' vegetation within the lot is required to establish the proposed buildings.<br><br>Proposed Modification:<br>Management of native forest vegetation to the north-west and north-east will be required to increase the separation distance between classified vegetation and proposed short stay buildings and buildings within the over 55's village.<br>Some vegetation modification and clearing is required to ensure the bushfire hazard within the site is managed and to establish sufficient separation distance between revegetation planned for the foreshore area and the site's developable area.<br><br>Demonstration of why the planning proposal cannot be re-designed or re-located to avoid clearing and/or modifying native vegetation.<br>To utilise the space efficiently and to increase yield, the majority of the lot is to be utilised for development. | |
| **Conservation Response** | |
| The proposal reserves native vegetation for conservation, recreation or environmental protection purpose. These can include ecological linkage, local natural area, waterway, or foreshore area or wetland buffer. | Yes |
| The Capel River runs along the northern boundary of the subject lot. The vegetation along the water way is to be predominantly retained with some additional areas undergoing revegetation works to increase the ecological value of the area. | |
| **Siting / Design / Construction Responses** | |
| Reduction in the proposed intensification of land use or development potential. | Yes |
| Assessment Supporting Details:<br>The easement within the subject lot bordering the Capel River will not be developed and instead, partially revegetated while maintaining adequate setbacks from classified vegetation to proposed dwellings to reduce potential bushfire impact (buildings not subject to more than 29kW/m$^2$ (BAL-29)). The land within the easement is under management control of the proponent (refer to DPLH confirmation in Appendix E). | |
| Containing or clustering areas of intensification of land use to reduce clearing requirements. | Yes |
| Assessment Supporting Details: | |

| | |
|---|---|
| The development proposed the construction of multi storey buildings to maximise land use while retaining vegetation along Capel River. | |
| Consideration of locating proposed development to have greater initial vegetation separation distances from bushfire hazards by utilising non-vegetated interfaces. | Yes |
| Assessment Supporting Details:<br>An advice brief was prepared by BPP indicating the areas which can achieve BAL-29 while retaining the majority of existing vegetation along Capel River. The 'Woodland' vegetation within the subject site, however, will need to be modified/removed for the development. | |
| Modification or redesign of the proposed areas of intensification of land use to avoid areas with high environmental, biodiversity or conservation values. | No |
| The proposal has applied a reduction in the intensification of land use or development potential (e.g. reduced lot yield or smaller building footprints), to ensure the retention of greater areas of native vegetation while achieving the required vegetation separation distances to limit exposure to unacceptable levels of potential bushfire impact. | No |
| The proposal situates required non-vegetated elements (e.g. footpaths, paved areas, roads, parking, open drainage channels, and major services delivery installed in common corridors), between bushfire hazards and elements at risk – to effectively achieve required vegetation separation distances with less vegetation clearing and/or modification. | Yes |
| Assessment Supporting Details:<br>Car parking and a ring road have been designed to separate the over 55's village from the forest to the north; increasing the separation distance between proposed buildings and bushfire hazard. | |
| The proposal applies building envelopes, and these have located to minimise the requirement to clear and/or modify native vegetation. | N/A |
| The proposal utilises the clustering habitable buildings to reduce requirements for native vegetation clearing and/or modification. | Yes |
| Assessment Supporting Details:<br>The development proposed the construction of multi storey buildings to maximise land use while retaining vegetation along Capel River. | |
| The proposal aligns roads and pathways to work around trees and other vegetation, preserving their ecological values. | Yes |
| Assessment Supporting Details:<br>Some trees will be retained within the site. A proposed tree retention plan has been prepared. | |
| The proposal establishes requirements for the construction of building(s) to satisfy the requirements corresponding to higher BAL ratings to ensure a reduced vegetation separation distance requirement. | N/A |

## 2.3 Vegetation Management Plans with Implications for the BMP

**EXPLANATORY INFORMATION**

This section identifies the area(s) of land (supporting vegetation), within or near the subject site (i.e. onsite or offsite) to which one or more of the following scenarios and their corresponding management actions applies.

If none of these scenarios is relevant to the subject planning proposal, this is stated.

1. Area(s) subject to a **LANDSCAPE PLAN THAT RESULTS IN RELEVANT ELEMENTS AT RISK BEING EXPOSED TO A LOW BUSHFIRE THREAT LEVEL** from existing or planned area(s) of vegetation and establishes the following management actions:

    (a) To apply landscaping design (including the modification and/or establishment of plants/shrubs/trees), that will enable the area(s) to be excluded from classification under AS 3959 BAL determination methodology;

    (b) To actively manage the area(s) to maintain the low bushfire threat level in perpetuity. Thereby ensuring the applicable bushfire protection measures, applied in accordance with the BMP, remain effective;

    (c) To achieve and maintain the low threat state through using a combination of mechanisms including:

        (i) Minimising vegetation fuel loads through design and ongoing management;

        (ii) Using low flammability and/or higher moisture content species;

        (iii) Incorporating non-vegetated elements; and

    (d) To identify the entity responsible for ensuring the landscape plan is complied with in perpetuity and when required, will contain written confirmation of their acceptance of the responsibility.

2. Area(s) subject to a **LANDSCAPE PLAN THAT RESULTS IN RELEVANT ELEMENTS AT RISK BEING EXPOSED TO A REDUCED BUSHFIRE THREAT LEVEL** from existing or planned area(s) of vegetation and establishes the following management actions:

    (a) To apply landscaping design involving the removal and/or modification of existing vegetation that will enable the area(s) to be classified as a lower threat class under AS 3959:2018 BAL determination methodology;

    (b) To actively manage the area(s) to maintain the reduced bushfire threat level in perpetuity. Thereby ensuring the applicable bushfire protection measures, applied in accordance with the BMP, remain effective;

    (c) To identify the entity responsible for ensuring the landscape plan is complied with in perpetuity and when required, will contain written confirmation of their acceptance of the responsibility.

3. Area(s) subject to a **REVEGETATION PLAN THAT MAY RESULT IN RELEVANT ELEMENTS AT RISK BEING EXPOSED TO AN ADDITIONAL BUSHFIRE HAZARD AND/OR AN INCREASED BUSHFIRE THREAT LEVEL** from an existing area(s) of vegetation and establishes the following information:

    (a) The location of the areas to be revegetated (as distinct from natural regeneration which is accounted for in the vegetation classification under AS 3959 BAL determination methodology); and

    (b) A description of the planned design regarding density and species of plants/shrubs/trees to inform the bushfire consultant's classification of the vegetation under AS 3959:2018 BAL determination methodology.

| | |
|---|---|
| Relevance of the Stated Scenarios to the Subject Planning Proposal | Scenarios 2 and 3 are relevant. |

### 2.3.1 Landscape Management Plan – Reduced Bushfire Threat Level

<table>
<tr><th colspan="5">PLANNED LANDSCAPING – REDUCED BUSHFIRE THREAT LEVEL</th></tr>
<tr><td colspan="4">Assessment Details</td><td>Relevant</td></tr>
<tr><td colspan="4">The area of land that is to be subject to a Landscape Management Plan is within the subject site (onsite).</td><td>Yes</td></tr>
<tr><td colspan="4">The area of land that is to be subject to a Landscape Management Plan is outside the subject site (offsite).</td><td>No</td></tr>
<tr><td colspan="4">The landscape plan is recommended as a bushfire protection measure by the bushfire consultant for the reasons identified in the ‘Additional Bushfire Protection Measures of this BMP.</td><td>No</td></tr>
<tr><td colspan="4">The area of land subject to the landscape management plan will have its classification under AS 3959 (as amended) BAL determination methodology changed to a lower threat classification than that which currently applies.</td><td>Yes</td></tr>
<tr><td colspan="4">Responsibility for Ongoing Management of the Landscaped Area</td><td rowspan="8">Yes</td></tr>
<tr><td>Landscaped Area</td><td colspan="2">Persons / Agency</td><td>A Requirement Exists for Written Authority and/or Agreement to Remove/Modify/Manage Vegetation</td></tr>
<tr><td rowspan="2">Onsite</td><td>Landowner</td><td>Yes</td><td>Yes</td></tr>
<tr><td>Local Government</td><td>No</td><td>N/A</td></tr>
<tr><td rowspan="4">Offsite</td><td>Landowner</td><td>N/A</td><td rowspan="4">N/A</td></tr>
<tr><td>Local Government</td><td>N/A</td></tr>
<tr><td>DBCA</td><td>N/A</td></tr>
<tr><td>Main Roads WA</td><td>N/A</td></tr>
<tr><td colspan="4">An approved landscape management plan and/or written confirmation exists and is provided to demonstrate that agencies responsible for the ongoing management understand and support the vegetation classification assigned to the subject area and its resulting ongoing management implications on the agency.</td><td>No</td></tr>
<tr><td colspan="4">A written authority and management agreement exists and is provided to demonstrate an arrangement between adjoining landowners as to the responsibility for establishment and ongoing management of the defined area of land subject to a Landscape Management Plan.</td><td>No</td></tr>
<tr><td colspan="5">No management outside the lot boundaries is required.</td></tr>
<tr><td colspan="5">Identification of the Area(s) of Land Subject to a Landscape Management Plan</td></tr>
<tr><td colspan="5">BPP: Refer to Figure 3.1 showing existing vegetation and Figure 3.1.1 with the post development vegetation mapping. Figure 1 shows the areas of landscaping within the site.</td></tr>
<tr><td colspan="5">Location of the Landscape Management Plan / Authority / Confirmation / Agreement for Reference</td></tr>
<tr><td colspan="5">This document will be prepared by the proponent and submitted to the decision maker. The preparation of a Landscape Management Plan is a requirement listed in Section 6 of this BMP.</td></tr>
<tr><td colspan="5">Implications for the BMP</td></tr>
<tr><td colspan="5">The Landscape Management Plan (LMP) will identify the areas within the subject lot where vegetation will be managed and maintained to a low threat state. The LMP will need to address APZ principles (refer Appendix B) and implement the required APZ as per this BMP. The LMP will include which species will be planted, at what density and determine the ongoing management treatment to manage and maintain the APZ to a low threat state. The LMP will need to include bushfire safe principles within all aspects of vegetation management.<br>The Landscape Management Plan will also address the revegetation that is planned along the Capel River foreshore area within the lot boundaries, refer to Section 2.3.2.</td></tr>
</table>

### 2.3.2 Revegetation Plan – Additional Bushfire Hazard

| PLANNED REVEGETATION – ADDITIONAL BUSHFIRE HAZARD | | | |
|---|---|---|---|
| Assessment Details | | | Relevant |
| The area of land that is to be subject to a revegetation plan is within the subject site (onsite). | | | Yes |
| The area of land that is to be subject to a revegetation plan is outside the subject site (offsite). | | | No |
| The revegetation plan will introduce a bushfire hazard that doesn't currently exist. | | | Yes |
| The area of land subject to the revegetation plan will introduce a bushfire hazard with a greater bushfire threat level than currently exists. its classification under AS 3959 (as amended) BAL determination methodology will be changed to a higher threat level classification. | | | Yes |
| Revegetated Area | | Description | |
| Onsite | Riparian Zones | - | No |
| | Foreshore Areas | | No |
| | Wetland Buffers | Revegetation will occur along the Capel River foreshore area within the subject lot. | Yes |
| | Legislated Lands | - | No |
| | Public Open Space | | No |
| | Road Verges | | No |
| | Other | | No |
| Offsite | Riparian Zones | - | No |
| | Foreshore Areas | | No |
| | Wetland Buffers | | No |
| | Legislated Lands | | No |
| | Public Open Space | | No |
| | Road Verges | | No |
| | Other | | No |
| Identification of the Area(s) of Land Subject to a Revegetation Plan | | | |
| Figure 3.1.1 shows the area of land which will be revegetated and the subsequent classification under AS3959. | | | |
| Implications for the BMP | | | |
| The proposed revegetation will need to be outlined in the Landscape Management Plan along with ongoing maintenance and management to ensure the separation distance between the revegetation and the buildings does not decrease. | | | |

# 3 THE BUSHFIRE HAZARD – POTENTIAL IMPACT - LANDSCAPE AND VEGETATION DATA

## 3.1 Bushfire Attack Level (BAL) Assessment Summary (Contour Map Format)

**EXPLANATORY INFORMATION**

**Caution!** Future building works require a 'determined' BAL rating for building permit applications. When a BAL contour map is being used for planning assessment purposes, (as opposed to a building assessment purpose), the required 'determined' BAL rating typically is not able to be derived from the map (there are only limited scenarios where this is possible).

The BAL ratings identified from the map will more likely be only 'indicative' of what can be achieved – with planning compliance for this factor being achieved when BAL-29 is indicated.

Otherwise, an additional assessment of the site data for building application purposes is required, and potentially approval will need to be obtained for native vegetation modification and/or removal from the relevant authority.

Refer to Appendix B2 for additional information and guidance regarding interpretation of the BAL Contour Map.

### 3.1.1 BAL Determination Methodology and Location of Data and Results

| LOCATION OF DATA & RESULTS | | | | | |
|---|---|---|---|---|---|
| BAL Determination Methodology | | Location of the Site Assessment Data | | | Location of the Results |
| AS 3959:2018 | Applied to Assessment | Classified Vegetation and Topography Map(s) | Calculation Input Variables | | Assessed Bushfire Attack Levels and/or Radiant Heat Levels |
| | | | Summary Data | Detailed Data with Explanatory and Supporting Information | |
| Method 1 (Simplified) | Yes | Figure 3.1 | Table 3.2 | Appendix A1 | Table 3.1<br>Table 3.3<br>BAL Contour Map |

### 3.1.2 BAL Ratings Derived from the Contour Map

Table 3.1: Indicative and determined BAL(s) for existing and/or proposed building works.

| BUSHFIRE ATTACK LEVEL FOR EXISTING/PLANNED BUILDINGS/STRUCTURE [1] | | |
|---|---|---|
| Building/Structure Description | Indicative BAL [2] | Determined BAL [2] |
| Short stay accommodation unites | BAL-29 and BAL-19 | Not Determined |
| Over 55's lifestyle village | BAL-29, BAL-19, BAL-12.5 and BAL-LOW | Not Determined |
| Commercial building and apartments | N/A | BAL-12.5 |
| Clubhouse | BAL-29 | Not Determined |
| [1] The assessment data used to derive the BAL ratings is sourced from Table 3.1 and Figure 3.2 'BAL Contour Map'.<br>[2] Refer to the start of Section 3 for an explanation of indicative versus determined BAL ratings. | | |

### 3.1.3 Site Assessment Data Applied to Construction of the BAL Contour Map(s)

| RELEVANT CLASSIFIED VEGETATION | |
|---|---|
| Identification of Classified Vegetation that is Relevant to the Production of the BAL Contour Map(s) | Relevant Vegetation Map |
| The relevant vegetation for the pre-development BAL contour map will be all areas of classified vegetation that exist at the time of the site assessment – both within the subject site (onsite) and external to the subject site (offsite). | Figure No.3.1 |
| The relevant vegetation for the post-development BAL contour map will be any area of classified vegetation - both within the subject site (onsite) and external to the subject site (offsite) - that will remain at the intended end state of the subject development once earthworks, any clearing and/or landscaping and re-vegetation have been completed. | Figure No.3.1.1 |
| Supporting Assessment Details:<br>None Required. | |

Table 3.2: Calculation inputs applied to deriving the vegetation separation distances corresponding to different levels of potential radiant heat transfer.

| DATA APPLIED TO CALCULATE THE SITE SPECIFIC VEGETATION SEPARATION DISTANCES CORRESPONDING TO POTENTIAL RADIANT HEAT TRANSFER LEVELS [1] | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Applied BAL Determination Method | | METHOD 1 - SIMPLIFIED PROCEDURE (AS 3959:2018 CLAUSE 2.2) | | | | | | | | | | |
| The Calculation Input Variables - Corresponding to the Applied BAL Determination Method [2] | | | | | | | | | | | | |
| Methods 1 and 2 | | Method 1 | | | Method 2 | | | | | | | |
| Vegetation Classification | | FDI | Effective Slope | | Site Slope | FFDI or GFDI | Flame Temp. | Elevation of Receiver | Flame Width | Fireline Intensity | Flame Length | Modified View Factor |
| | | | Applied Range | Measured | | | | | | | | |
| Area | Class | | degree range | degrees | degrees | | K | metres | metres | kW/m | metres | % Reduction |
| 1 | (A) Forest | 80 | Upslope or flat 0 | flat 0 | - | - | - | - | - | - | - | - |
| 2 | (A) Forest | 80 | Downslope >0-5 | d/slope 5 | - | - | - | - | - | - | - | - |
| 3 | (B) Woodland | 80 | Upslope or flat 0 | flat 0 | - | - | - | - | - | - | - | - |
| 4 | (G) Grassland | 80 | Upslope or flat 0 | flat 0 | - | - | - | - | - | - | - | - |
| 5 | Excluded cl 2.2.3.2(e & f) | N/A | N/A | - | - | - | - | - | - | - | - | - |

**Note 1:** The values used to indicate levels of potential radiant heat transfer (from fire in bushfire prone vegetation to exposed elements at risk), will be stated in subsequent tables as either as a bushfire attack level (BAL) and/or as kilowatts per square metre (kW/m2), as relevant to the application of the value and the type and use of the element at risk.

**Note 2:** All data and information supporting the determination of the classifications and values stated in this table is presented in Appendix A. Where the values are stated as 'default' these are either the values stated in AS 3959:2018, Table B1 or the values calculated as intermediate or final outputs through application of the equations of the AS 3959:2018 BAL determination methodology. They are not values derived by the assessor.

Table 3.3: Vegetation separation distances corresponding to the stated levels of potential radiant heat transfer.

| THE CALCULATED (SITE SPECIFIC) VEGETATION SEPARATION DISTANCES CORRESPONDING TO THE STATED LEVEL OF POTENTIAL RADIANT HEAT TRANSFER (METRES) [1] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Vegetation Classification | | Maximum Radiant Heat Transfer (Flux) | | | | | | | |
| | | >40 kW/m² | 40 kW/m² | 29 kW/m² | 19 kW/m² | 12.5 kW/m² | N/A [2] | 10 kW/m² | 2 kW/m² |
| | | Bushfire Attack Levels | | | | | | | |
| Area | Class | BAL-FZ | BAL-40 | BAL-29 | BAL-19 | BAL12.5 | BAL-LOW | | |
| 1 | (A) Forest | <16 | 16-<21 | 21-<31 | 31-<42 | 42-<100 | >100 | - | - |
| 2 | (A) Forest | <20 | 20-<27 | 27-<37 | 37-<50 | 50-<100 | >100 | - | - |
| 3 | (B) Woodland | <10 | 10-<14 | 14-<20 | 20-<29 | 29-<100 | >100 | - | - |
| 4 | (G) Grassland | <6 | 6-<8 | 8-<12 | 12-<17 | 17-<50 | >50 | - | - |
| 5 | Excluded cl 2.2.3.2(e & f) | - | - | - | - | - | - | - | - |

**Note** 1: The calculated results are illustrated in Figure 3.2 as a BAL Contour Map and/ or additional defining lines as necessary. All applied calculation input variables are presented in Table 3.2. A copy of the radiant heat calculator output for each area of classified vegetation is presented in Appendix A3.

**Note 2:** The BAL-LOW rating does not represent a maximum level of radiant heat transfer. The rating is applied when the separation distance is at least 100m from all classified vegetation except Grassland, for which 50m applies.

*Figure 3.1*

# Classified Vegetation & Topography (Existing)

Lot 28 on Plan 222236, Area: 3.3539ha
96 Capel Drive,
Capel
SHIRE OF CAPEL


------ LEGEND ------

- Subject Site
- Cadastral
- Photos and Direction
- Hydrants
- 150m Assessment Area
- 100m Assessment Area

**Classified vegetation**

- Forest
- Woodland
- Grassland
- Excluded 2,2,3,2 (e)
- Excluded 2,2,3,2 (f)

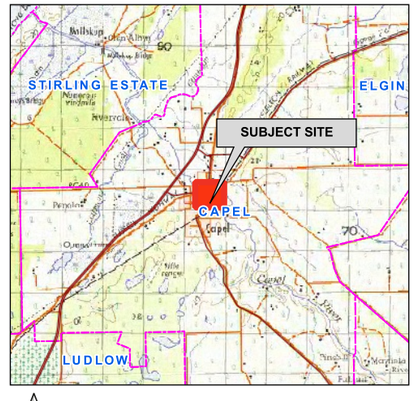
**Buildings**

- Clubhouse
- commercial & apartments
- Covered parking
- Over 55's
- Short stay
- Stables retained

0 20 40 60 80 100

Metres

------ LOCALITY ------




AERIAL IMAGERY: Landgate/SLIP

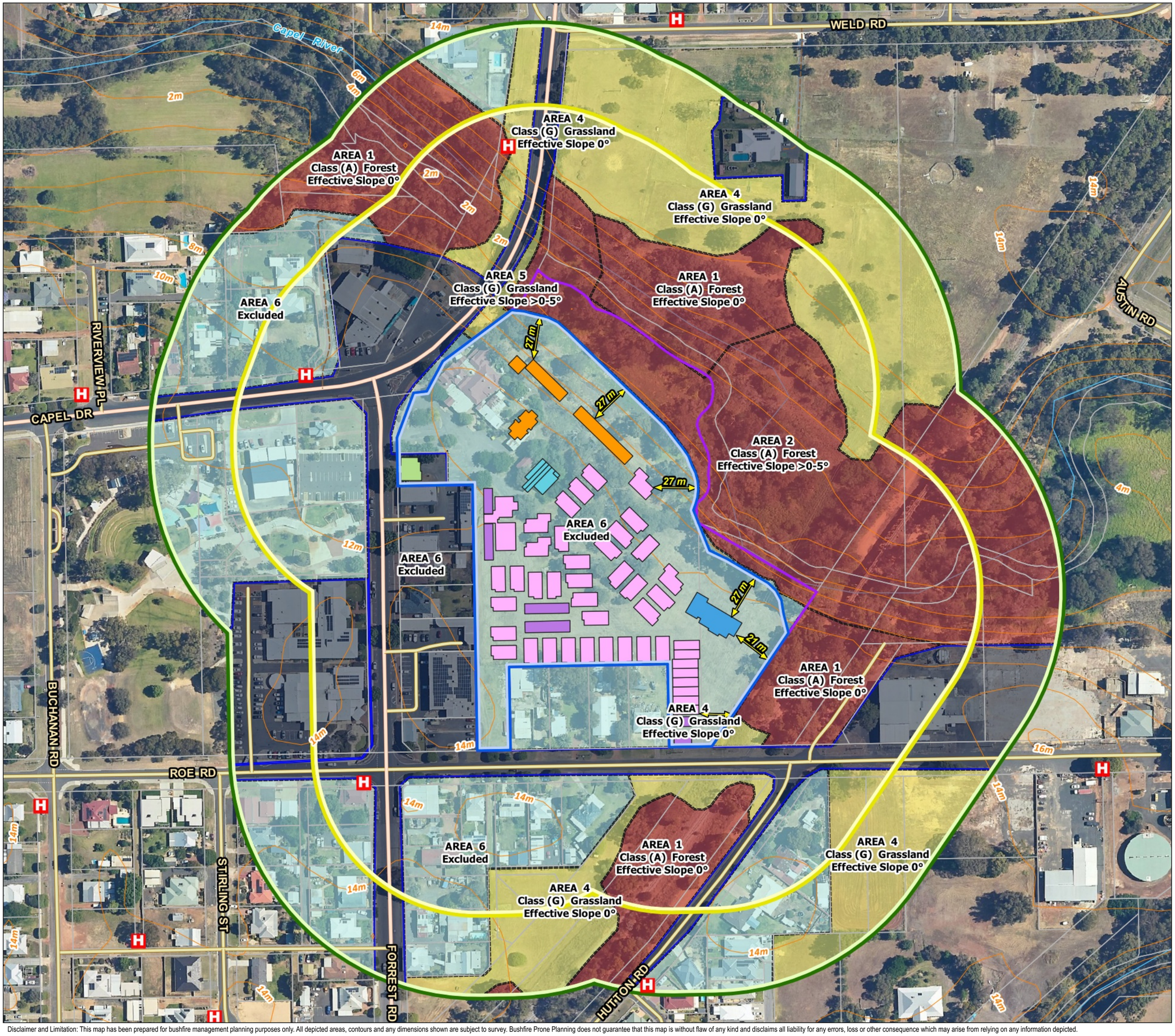
Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Merctaor Units: Metre
Map by: Joy 24-10-2025
SCALE (A3): 1 : 2150

BUSHFIRE PRONE PLANNING

*Figure 3.1.1*

# Classified Vegetation & Topography (Post Dev)

Lot 28 on Plan 222236, Area: 3.3539ha
96 Capel Drive,
Capel
SHIRE OF CAPEL




**------ LEGEND ------**

- Subject Site
- Cadastral
- Hydrants
- APZ Polygon
- APZ Distance (m)
- 150m Assessment Area
- 100m Assessment Area

**Classified Vegetation**

- Forest
- Grassland
- Excluded 2,2,3,2 (e)
- Excluded 2,2,3,2 (f)

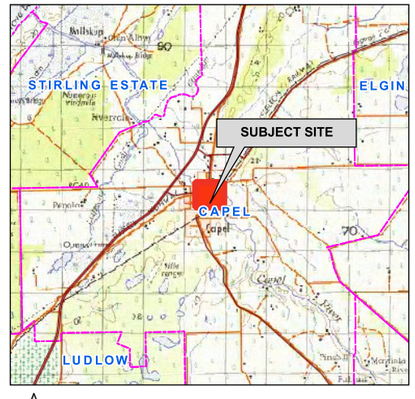
**Buildings**

- Clubhouse
- commercial & apartments
- Covered parking
- Over 55's
- Short stay
- Stables retained

0 20 40 60 80 100

Metres

**------ LOCALITY ------**




AERIAL IMAGERY: Landgate/SLIP

Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Merctaor Units: Metre
Map by: Joy 24-10-2025
SCALE (A3): 1 : 2150

BUSHFIRE PRONE PLANNING

*Figure 3.2*

# BAL Contour Map (Existing / Pre development)

Lot 28 on Plan 222236, Area: 3.3539ha
96 Capel Drive,
Capel
SHIRE OF CAPEL

**------ LEGEND ------**

- Subject Site
- Cadastral
- Hydrants
- 150m Assessment Area
- 100m Assessment Area

**Buildings**

- Clubhouse
- commercial & apartments
- Covered parking
- Over 55's
- Short stay
- Stables retained

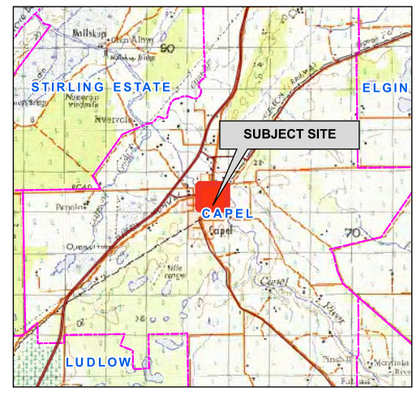
**Bushfire Attack Levels**

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

0 20 40 60 80 100

Metres

**------ LOCALITY ------**




AERIAL IMAGERY: Landgate/SLIP

Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Merctaor Units: Metre
Map by: Joy 24-10-2025
SCALE (A3): 1 : 2150

BUSHFIRE PRONE PLANNING

*Figure 3.2.1*

# BAL Contour Map

Lot 28 on Plan 222236, Area: 3.3539ha
96 Capel Drive,
Capel
SHIRE OF CAPEL

**------ LEGEND ------**

- Subject Site
- Cadastral
- Hydrants
- APZ Polygon
- 100m Assessment Area

**Buildings**

- Clubhouse
- commercial & apartments
- Covered parking
- Over 55's
- Short stay
- Stables retained

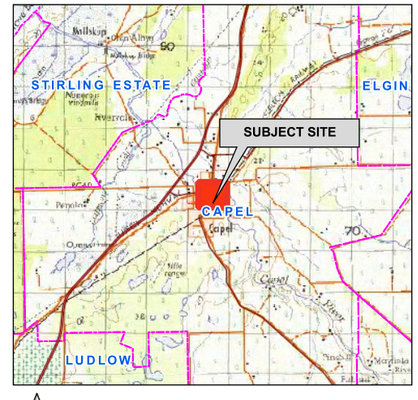
**Bushfire Attack Levels**

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

0 20 40 60 80 100

Metres

**------ LOCALITY ------**




AERIAL IMAGERY: Landgate/SLIP

BUSHFIRE PRONE PLANNING

Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Merctaor Units: Metre
Map by: Joy 24-10-2025
SCALE (A3): 1 : 2150

# 4 IDENTIFICATION OF BUSHFIRE HAZARD ISSUES

**EXPLANATORY INFORMATION**

**Section Content Guidance (DPLH/WAPC)**

'Bushfire Hazard Issues' is a section of the Bushfire Management Plan (BMP) in accordance with guidance presented in the BMP Manual (DPLH/WAPC, November 2024).

The Manual indicates the intent of applying its guidance with the following statement:

> *"The standardisation of BMP's improves efficiencies in decision making at local and state government level by promoting the clear and succinct presentation of information required under SPP 3.7 and the Guidelines."*

**Bushfire Prone Planning's Approach**

In complying more broadly with the above efficiency intentions, Bushfire Prone Planning (BPP) will also seek to:

- Improve the efficiency of BMP development by its consultants; and
- Ensure the readability and understanding of the BMP by persons who will need to read the document.

Key to achieving these efficiency and comprehension outcomes is the design and quality of the explanatory and assessment content of the BMP. This includes the effective use of Section 4 by not repeating content and assessment summaries that are presented in other sections of the BMP.

Typically, bushfire hazard issues will be appropriately addressed in Sections 2 and 3 of the BMP which identify:

- The required environmental considerations; and
- The assessment of potential levels of bushfire impact and their justification.

**Limitation on Section 4 Content**

As a consequence of the above considerations, content in this section will be limited to raising decision maker awareness regarding additional site specific matters that otherwise may not be a component of the standard BMP bushfire hazard assessment.

Additional information is provided on an 'as necessary' basis for the following scenarios:

1. When local governments have provided jurisdiction specific bushfire hazard assessment and/or management guidance that needs to be addressed. How these have been considered by the bushfire consultant in conducting their bushfire hazard assessments will be discussed.
2. When, due to difficult site conditions, additional explanation and justification of the bushfire hazard assessment process undertaken by the bushfire consultant would assist decision making.
3. Matters are identified when they are either not considered or are only partially considered, under the bushfire hazard assessments conducted in accordance with SPP 3.7/Guidelines. These include matters that would potentially reflect poorly on the bushfire consultant's professional integrity if ignored.

| | |
|---|---|
| For the subject planning proposal, has the bushfire practitioner determined (in accordance with the explanatory information above), that presenting additional information in this section is necessary? | No |
| Additional bushfire hazard information is provided below for the relevant scenarios. | N/A |

# 5 ASSESSMENT AGAINST THE BUSHFIRE PROTECTION CRITERIA (BPC)

**EXPLANATORY INFORMATION**

State Planning Policy 3.7 Bushfire (SPP 3.7) establishes policy outcomes (cl. 6) that "specify the role of planning and development in contributing to the overall objectives" of the policy.

The policy outcomes are incorporated into the four elements of the bushfire protection criteria established in the Planning for Bushfire Guidelines (Guidelines).

**CONSEQUENTLY, TO SATISFY THE OBJECTIVES AND POLICY OUTCOMES OF SPP 3.7, A PLANNING PROPOSAL IN A DESIGNATED BUSHFIRE PRONE AREA IS REQUIRED TO DEMONSTRATE THAT COMPLIANCE WITH THE BUSHFIRE PROTECTION CRITERIA CAN BE ACHIEVED.**

The Guidelines in Section 2.2.1 establish two pathways to demonstrate compliance:

1. The deemed to comply pathway - in which compliance is able to be demonstrated with all relevant acceptable solutions associated with each Element, for a specific planning stage or use; or
2. An alternative pathway when all relevant acceptable solutions cannot be fully achieved, which utilises either:
    (a) The outcomes-based approach (established in SPP 3.7 cl. 6) alone; or
    (b) A combination of the outcomes-based approach and the acceptable solutions.

For the subject planning proposal:

- The assessment applying the deemed to comply pathway assessment is presented in Section 5.3.
- When an assessment applying the alternative pathway is necessary, the required additional information is presented in Section 5.4.

## 5.1 Local Government Variations to Apply

**EXPLANATORY INFORMATION**

1. Local governments may add to or modify the acceptable solutions contained within the Guidelines to recognise special local or regional circumstances that reinforce the SPP 3.7 objectives and outcomes. This is achieved through regional or local variations that form part of a local planning strategy and/or local planning scheme via a scheme amendment or special control area.

   This could include acceptable solutions that address topography, vegetation or climate to the satisfaction of the Western Australian Planning Commission (WAPC) that the modifications comply with the corresponding SPP 3.7 objectives and outcomes. (Planning for Bushfire Guidelines, s. 3.4, 2024).
2. Under the relevant state legislation (LPS Regulations 2015), SPP 3.7 does not apply to hosted or unhosted short-term rental accommodation. However, the local government under its Local Planning framework (i.e. Strategy / Scheme and Policy as applicable), may require that certain bushfire protection measures or variations to the measures (the bushfire protection criteria), established by SPP 3.7 and the Guidelines, are to be applied.

| | |
|---|---|
| Endorsed regional or local variations to the acceptable solutions apply to the assessments against the Bushfire Protection Criteria for the planning proposal? | No |
| The proposed land use for hosted or unhosted short-term rental accommodation, and the local government requires certain bushfire protection measures, contained within the BPC, to be applied, that under the LPS Regulations 2015, would otherwise not be required? | No |

## 5.2 Assessment Summary

| PATHWAY APPLIED TO DEMONSTRATE ACHIEVING POLICY OUTCOMES OF SPP 3.7 BUSHFIRE [1]<br>INCLUDES SUMMARY OF THE PROPOSAL'S ASSESSMENT AGAINST THE BPC ACCEPTABLE SOLUTIONS | | | |
|---|---|---|---|
| DEVELOPMENT - RESIDENTIAL | | | |
| The Acceptable Solutions Corresponding to the Policy Outcomes of SPP 3.7 Bushfire as Incorporated into the Elements of the Bushfire Protection Criteria (Guidelines) | Acceptable Solutions Pathway<br>Compliance Status | Alternative Pathway [2]<br>Outcomes-Based Approach Only | Alternative Pathway [2]<br>Combination of Pathways |
| ELEMENT 2: SITING AND DESIGN: | Fully Compliant | - | - |
| A2.1a Siting and design | Fully Compliant | | |
| A2.1b Siting in an area with a radiant heat impact exceeding 29 kW/m² (BAL-40 or BAL-FZ) | Not Applicable | | |
| A2.2 Asset Protection Zone (APZ) | Fully Compliant | | |
| A2.3 Clearing of native vegetation | Not Applicable | | |
| ELEMENT 3: VEHICULAR ACCESS: | Fully Compliant | - | - |
| A3.1 Private Driveways | Fully Compliant | | |
| ELEMENT 4: WATER SUPPLY: | Fully Compliant | - | - |
| A4.1 Water supply | Fully Compliant | | |

Note 1: Achieving the objectives and policy outcomes of SPP 3.7 Bushfire can be demonstrated through either the acceptable solutions pathway, the outcomes- based approach only, or a combination of both pathways (refer to Guidelines s 2.2.1).

Note 2: When applied, the required additional assessment details are provided in Section 5.4 of this BMP. The content and comprehensiveness of the assessment will vary dependant on the specific conditions of the broader landscape, the development site, its use and the degree to which any relevant acceptable solutions cannot be complied with.

| PATHWAY APPLIED TO DEMONSTRATE ACHIEVING POLICY OUTCOMES OF SPP 3.7 BUSHFIRE [1]<br>INCLUDES SUMMARY OF THE PROPOSAL'S ASSESSMENT AGAINST THE BPC ACCEPTABLE SOLUTIONS | | | |
|---|---|---|---|
| DEVELOPMENT – VULNERABLE TOURISM LAND USES AND DAY USES | | | |
| The Acceptable Solutions Corresponding to the Policy Outcomes of SPP 3.7 Bushfire as Incorporated into the Elements of the Bushfire Protection Criteria (Guidelines) | Acceptable Solutions Pathway<br>Compliance Status | Alternative Pathway [2]<br>Outcomes-Based Approach Only | Alternative Pathway [2]<br>Combination of Pathways |
| ELEMENT 2: SITING AND DESIGN: | Fully Compliant | - | - |
| A2.1a Siting and design | Fully Compliant | | |
| A2.1b Asset Protection Zone (APZ) | Fully Compliant | | |
| A2.2a Siting in an area with a radiant heat impact exceeding 29 kW/m² (BAL-40 or BAL-FZ) | Not Applicable | | |
| A2.2b Asset Protection Zone (APZ) | Not Applicable | | |
| A2.3 Clearing of native vegetation | Fully Compliant | | |
| A2.4 Landscape management plan | Fully Compliant | | |
| A2.5 Onsite shelter (safer building) - schools | Not Applicable | | |
| ELEMENT 3: VEHICULAR ACCESS: | Fully Compliant | - | - |
| A3.1 Public roads | Fully Compliant | | |
| A3.2a Access routes | Fully Compliant | | |
| A3.2b Access routes for a day use with no overnight accommodation | Not Applicable | | |
| A3.3a No-through roads | Not Applicable | | |
| A3.3b No-through roads technical requirements | Not Applicable | | |
| A3.4 Emergency access way | Not Applicable | | |
| A3.5 Onsite shelter | Not Applicable | | |
| A3.6 Fire service access route | Not Applicable | | |
| A3.7 Internal vehicular access & private driveways | Fully Compliant | | |
| A3.8 Signage | Fully Compliant | | |
| ELEMENT 4: WATER SUPPLY: | Fully Compliant | - | - |
| A4.1 Water supply | Fully Compliant | | |
| Note 1: Achieving the objectives and policy outcomes of SPP 3.7 Bushfire can be demonstrated through either the acceptable solutions pathway, the outcomes- based approach only, or a combination of both pathways (refer to Guidelines s 2.2.1).<br>Note 2: When applied, the required additional assessment details are provided in Section 5.4 of this BMP. The content and comprehensiveness of the assessment will vary dependant on the specific conditions of the broader landscape, the development site, its use and the degree to which any relevant acceptable solutions cannot be complied with. | | | |

## 5.3 BPC 6: Development – Residential - Acceptable Solutions Assessment

### 5.3.1 Element 2: Siting and Design

**ELEMENT 2: SITING AND DESIGN (DEVELOPMENT - RESIDENTIAL)**

**EXPLANATORY INFORMATION**

Refer to Appendices B1 and B3 of this BMP for additional information and to *the bushfire protection measure implementation checklist in Section 6 for the APZ dimensions applicable to this planning proposal.*

**The Planning Assessment and the APZ**

This assessment is a 'planning assessment' being conducted for planning approval purposes only. All details of acceptable solution requirements are established in the Planning for Bushfire Guidelines (Guidelines) – WA Department of Planning, Lands and Heritage (DPLH, as amended).

> *Note the assessment is not conducted for building approval purposes. The derivation of 'determined' BAL ratings for building permit applications is not the intended outcome of this planning assessment. However, in limited situations, the presented indicative BAL rating might also be considered as 'determined'.*

To comply with the relevant acceptable solutions contained in the 'Bushfire Planning Guidelines', the subject planning proposal must demonstrate that the required minimum sized asset protection zone (APZ) - subject to location constraints and allowances established by the Guidelines - can be installed surrounding a habitable or specified building.

**Approved BMP's and the APZ Dimensions to be Implemented**

An approved BMP, unless stated otherwise, is only approving the installation of an APZ comprised of:

- The minimum dimensions that ensure the radiant heat impact of a bushfire (on building works) does not exceed 29 kW/m² (BAL-29); or
- For specific 'vulnerable' land uses, the minimum dimensions that ensures the radiant heat impact of a bushfire (on building works) does not exceed the level of radiant heat exposure stated in the applicable acceptable solution; or
- The specific minimum dimensions that may be applied through the application of an outcomes-based approach.

Consequently, the 'minimum' dimensions of the approved APZ are also the 'maximum' approved dimensions when installation of the APZ will require the modification/removal of native vegetation. Installing a larger dimensioned APZ, to lower the determined BAL rating of specific building works, will need additional approval from the relevant planning authority.

The following bushfire planning policy and guidance potentially limit installed APZ dimensions:

- SPP 3.7 Bushfire, Policy Objectives, cl. 5.5 states – "Prioritise the retention of native vegetation for biodiversity conservation, environmental protection and landscape amenity.
- SPP 3.7 Bushfire, Policy Outcomes, cl. 6.2 - establishes that clearing of native vegetation is to be avoided or minimised in managing or mitigating bushfire risk.
- The Guidelines, Appendix B2, B.2.1 states - "clearing or modification of native vegetation to reduce the radiant heat impact below 29 kW/m² is generally not supported."

| | The Outcome of State Planning Policy 3.7 Bushfire (and the BPC) to be Achieved |
|---|---|
| O2 | **Ensure siting and design solutions:**<br>• **Manage or mitigate the bushfire risk to people, property and infrastructure; and**<br>• **Avoid, or where unavoidable, minimises the clearing of native vegetation. (SPP 3.7, 6.2)** |

| | |
|---|---|
| E2 | Acceptable Solutions Pathway - Compliance Statement |
| | The planning proposal is fully compliant with all applicable acceptable solutions and therefore achieves the required outcomes of this element. |
| | Alternative Pathway Applied to Demonstrate Ability to Achieve SPP 3.7 Outcomes |
| | N/A |

**ACCEPTABLE SOLUTIONS - ASSESSMENT STATEMENTS**

Check Box Legend: ☑ Relevant & met ☒ Relevant & not met ⊘ Not relevant

| **A2.1a Siting and design** | Applicable: | Yes | Compliant: | Yes |
|---|---|---|---|---|

| | |
|---|---|
| ☑ ☐ ☐ | The residential habitable building achieves a radiant heat impact not exceeding 29 kW/m² (BAL-29). |
| ☐ ☐ ⊘ | A2.1a is not applicable to the subject planning proposal as it cannot be complied with and an alternative acceptable solution A2.1b (dealing with the same protection measure), is provided and establishes a higher level of radiant heat impact that will be considered for planning approval, if it can be satisfactorily demonstrated that the allowable constraints apply to the subject development site. |

Assessment Supporting Details:

All dwellings within the over 55's lifestyle achieve a radiant heat impact not exceeding 29 kW/m² (BAL-29) (Refer to Figure 3.2.1).

| **A2.1b Siting in an area with a radiant heat impact exceeding 29 kW/m² (BAL-40 or BAL-FZ)** | Applicable: | No | Compliant: | - |
|---|---|---|---|---|

| | |
|---|---|
| ☑ ☐ ☐ | A2.1b is not applicable to the subject planning proposal because A2.1a can be complied with. |
| ☐ ☐ ⊘ | The residential habitable building(s) is sited with a radiant heat impact exceeding 29 kW/m² (BAL-40 or BAL-FZ) i.e. unable to establish an APZ in accordance with A2.2. However, the existence of the following conditions to allow consideration for approval are satisfied:<br>• The lot was created prior to 2015; and<br>• There are demonstrated site characteristics and/or biodiversity or conservation values that prevent the achievement of a radiant heat impact not exceeding 29 kW/m² (BAL-29); and<br>• It is demonstrated that the reduction of the building footprint or a redesign to manage or mitigate the risk, is not practical or appropriate.<br>AND<br>The vegetation immediately surrounding the building(s) can and will be managed as defendable space in accordance with the Guidelines Appendix B.2, Table 9 – APZ technical requirements. |

Assessment Supporting Details:

None required.

| A2.2 Asset Protection Zone (APZ) | Applicable: | Yes | Compliant: | Yes |
|---|---|---|---|---|

☐ ☐ ⊘ A2.2 is not applicable to the subject planning proposal because it is a requirement associated with the compliant application of A2.1a. Given A2.1a is not applicable to the subject planning proposal, A2.2 is also not applicable.

Where a residential habitable building(s) cannot be wholly within an area with a radiant heat impact not exceeding 29 kW/m² (BAL-29) in its pre-development state, an indicative APZ is to be provided and meet the following requirements for width, location and management:

☑ ☐ ☐ **APZ Width:** The APZ, when measured from any external wall or supporting post or column, is of sufficient size to ensure the radiant heat impact of a bushfire does not exceed 29 kW/m² (BAL-29) to any part of the building, in all circumstances.

☑ ☐ ☐ **APZ Location – Option 1:** The indicative 'Planning BAL-29' APZ can be contained solely within the boundaries of the lot.

☐ ☐ ⊘ **APZ Location – Option 2:** The indicative 'Planning BAL-29' APZ cannot be contained solely within the boundaries of the lot. However, the relevant vegetation on the adjoining land / lot(s) is, and will continue to be, on an ongoing basis in perpetuity, low threat as per:

- Clause 2.2.3.2 of AS 3959 (including non-vegetated land such as a sealed or unsealed road, or a water body); or
- The requirements of the Guidelines Appendix B.2, Table 9 – APZ technical requirements; or
- The alternative standard in the local planning scheme (when it exists).

☑ ☐ ☐ **APZ Management:** The APZ can and will be managed in accordance with the requirements established in the Guidelines, Appendix B.2 or the alternative standard in the gazetted local planning scheme (when it exists).

Assessment Supporting Details:

The Asset Protection Zone required to achieve BAL-29 for all buildings within the over 55's lifestyle village can be contained solely within the lot boundaries. The APZ will be managed and maintained in accordance with the Guidelines (refer Appendix B) and the 'low fuel zone' specification within the Shire of Capel Bushfire Mitigation Notice. A Landscape Management Plan will be prepared by the proponent which will outline the works to be completed to establish the APZ and detail the required ongoing maintenance.

| A2.3 Clearing of native vegetation | Applicable: | Yes | Compliant: | Yes |
|---|---|---|---|---|

☑ ☐ ☐ The development avoids, or where unavoidable, minimises the clearing of native vegetation.

Assessment Supporting Details:

Some clearing of vegetation within the subject site is required to construct all proposed buildings (predominantly *Agonis flexuosa*). Trees will be retained within the development where possible.

Revegetation will occur along the Capel River, to increase ecological value and align with relevant special control area requirements. Refer section 2 for details on revegetation.

### 5.3.2 Element 3: Vehicular Access

| ELEMENT 3: VEHICULAR ACCESS (DEVELOPMENT - RESIDENTIAL) | |
|---|---|
| All details of acceptable solution requirements are established in the Planning for Bushfire Guidelines (Guidelines) – WA Department of Planning, Lands and Heritage (DPLH, as amended). When relevant, the 'Bushfire Management Plan Guidance for the Dampier Peninsula' (DPLH, 2021 Rev B), is also referenced.<br><br>The technical construction requirements for access types and components are established in the Guidelines Appendix B.3, Table 10 (certain information is copied and presented in Appendix C of this BMP). The local government will advise the proponent where different requirements are to apply and when any additional specifications such as those for signage and gates are to apply. These are included as an appendix if requested by the local government.<br><br>***Note:***<br><br>*The following understanding of what constitutes a 'road', and the stated definitions can be important considerations for assessments against an acceptable solution for Element 3.*<br>• *Guidelines Appendix B3: Vehicular Access, identifies a 'road' as being either a public road (that includes a no-through road) or a perimeter road. All other access types (i.e. emergency access ways, fire service access routes, battle-axes and private driveways) are considered a different class of access i.e. they are not roads.*<br>• *SPP 3.7 defines 'no-through road' as "a cul-de-sac or dead end road".*<br>• *SPP 3.7 defines 'two-way access' as "vehicular access from a site in two different directions to at least two different suitable destinations". This allows for required access to potentially be provided by an emergency access way.* | |
| **O3** | **The Outcome of State Planning Policy 3.7 Bushfire (and the BPC) to be Achieved** |
| | **Ensure the design and capacity of vehicular access and egress provide:**<br>• **For efficient and effective evacuation to a suitable destination(s); and/or**<br>• **As a contingency measure for vulnerable land uses, an on-site shelter, where demonstrated appropriate, as a last resort option. (SPP 3.7, 6.3)** |
| **E3** | Acceptable Solutions Pathway - Compliance Statement |
| | The planning proposal is fully compliant with all applicable acceptable solutions and therefore achieves the required outcomes of this element. |
| | Alternative Pathway Applied to Demonstrate Ability to Achieve SPP 3.7 Outcomes |
| | N/A |

| ACCEPTABLE SOLUTIONS - ASSESSMENT STATEMENTS | | | | | |
|---|---|---|---|---|---|
| Check Box Legend: | ☑ Relevant & met | ☒ Relevant & not met | ⃠ Not relevant | | |
| **A3.1 Private driveways** | | | Applicable: | Yes | Compliant: Yes |
| ☐ ☐ ⃠ | The subject lot is serviced by reticulated water, and the private driveway is no greater than 70 metres in length between the most distant external part of the habitable building and the public road. For these conditions, no private driveway technical requirements are prescribed by the Guidelines. | | | | |
| ☑ ☐ ☐ | In circumstances where the above conditions are not met, the private driveway is to meet the following requirements: | | | | |

| | |
|---|---|
| | • The private driveway meets (or can and will meet) the technical requirements (Guidelines Appendix B3, Table 10) for minimum horizontal clearance (6 metres) or where not required to comply with the Guidelines width, it meets (or can and will meet) the requirements of the Residential Design Codes and Development Control Policy 2.2 Residential Subdivision; and |
| ☑ ☐ ☐ | • The private driveway meets (or can and will meet) the technical requirements (Guidelines Appendix B3, Table 10) for minimum vertical clearance (4.5 metres), minimum weight capacity (15 tonnes - includes bridges, culverts) and minimum inner radius of road curves (8.5 metres); and |
| ☑ ☐ ☐ | • The private driveway meets (or can and will meet) the technical requirements (Guidelines Appendix B3, Table 10) for the gradients of different surfaces and dips; and |
| ☑ ☐ ☐ | • Passing bays are (or can and will be) installed every 200 metres with a minimum length of 20 metres and a minimum additional carriageway width of 2 metres i.e. the combined carriageway width of the passing bay and constructed private driveway will be a minimum 6 metres; and |
| ☑ ☐ ☐ | • The turnaround area/head meets (or can and will meet) the design and location (within 30m of main habitable building) requirements established by the Guidelines (refer to Figures 30 and 38). |

Assessment Supporting Details:

The private driveways within the over 55's lifestyle village can and will meet the technical requirements of the Guidelines for width, vertical clearance and gradients (Refer Appendix C). The various parking areas adjacent to the driveways can be used as passing bays to satisfy the requirements of the Guidelines. These are spaced less than 200m apart.

### 5.3.3 Element 4: Water Supply

| ELEMENT 4: WATER SUPPLY (DEVELOPMENT - RESIDENTIAL) | |
|---|---|
| All details of acceptable solution requirements are established in the Planning for Bushfire Guidelines (Guidelines) – WA Department of Planning, Lands and Heritage (DPLH, as amended). When relevant, the 'Bushfire Management Plan Guidance for the Dampier Peninsula' (DPLH, 2021 Rev B), is also referenced. | |
| **O4** | **The Outcome of State Planning Policy 3.7 Bushfire (and the BPC) to be Achieved** |
| | **Ensure that sufficient water is available and accessible for emergency services, to enable people, property and infrastructure to be defended from bushfire. (SPP 3.7, 6.4)** |
| **E4** | Acceptable Solutions Pathway - Compliance Statement |
| | The planning proposal is fully compliant with all applicable acceptable solutions and therefore achieves the required outcomes of this element. |
| | Alternative Pathway Applied to Demonstrate Ability to Achieve SPP 3.7 Outcomes |
| | N/A |

| ACCEPTABLE SOLUTIONS - ASSESSMENT STATEMENTS | | | | | |
|---|---|---|---|---|---|
| Check Box Legend: | ☑ Relevant & met | ☒ Relevant & not met | ⃠ Not relevant | | |
| **A4.1 Water supply** | | | Applicable: | Yes | Compliant: Yes |
| ☑ ☐ ☐ | Evidence is provided that a reticulated water supply, available for firefighting purposes, exists or can be provided. Hydrant connection(s) will be provided in accordance with the specifications established by the relevant water supply authority (refer also to hydrant location information in Appendix D of this BMP). | | | | |
| ☐ ☐ ⃠ | The provision of or the specifications of a reticulated water supply cannot be met. Evidence is provided that a sufficient, sustainable and accessible non-reticulated water supply, dedicated to firefighting purposes, can and will be provided in accordance with the following specifications established in the Guidelines, Appendix B4: Water Supply: | | | | |
| ☐ ☐ ⃠ | • A 10,000 litre water supply tank per habitable building, dedicated to firefighting purposes, is or will be installed within each lot; and | | | | |
| ☐ ☐ ⃠ | • The above ground water supply tank(s), dedicated to firefighting purposes (and tank stand(s) when applicable), will be constructed of non-combustible material and as necessary, will comply with AS/NZS 3500.1(as amended).<br>This includes not using the same water supply for both domestic use and firefighting purposes. If a combined use tank(s) is to be used, it will separate the storage compartments in accordance with the provisions of the standard (i.e. internal installation of double partition walls); and | | | | |
| ☐ ☐ ⃠ | • The outlet connection fitting for the water supply tank(s), dedicated to firefighting purposes, will have a full flow valve and a 50 mm male camlock coupling; and | | | | |
| ☐ ☐ ⃠ | • All above-ground, exposed water supply pipes and fittings will be metal and positioned facing away from the source of bushfire hazard and/or shielded against potential bushfire impact – to allow access by emergency services; and | | | | |

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| ☐ ☐ ⊘ | • The planned provision of the water supply tank(s) will consider locations relative to the bushfire hazard. Location of the tank(s) and management of vegetation will ensure vegetation will not exist over or against the tank(s) and that sufficient separation exists to limit the potential bushfire impact.<br>Due consideration will also be given to the provision of sufficient separation from vegetation and/or shielding for the protection of firefighters accessing the water supply; and |
| ☐ ☐ ⊘ | • An unobstructed, hardened ground surface, for emergency services vehicle access, can and will be installed within 4 metres of the water supply outlet (refer to Figure 39, Guidelines); and |
| ☐ ☐ ⊘ | • It is proposed for a water supply tank outlet(s) is to be remote from the tank, the local government and DFES will have been consulted regarding the application and location. The determined requirements are presented as an Addendum in this BMP; and |
| ☐ ☐ ⊘ | • Planned below ground water supply tank(s), dedicated to firefighting purposes, will have at least a 200 mm diameter access hole – or a suitable inspection opening - to allow tankers or emergency services vehicles to refill direct from the tank, with the outlet location clearly marked on the surface. As necessary, the tanks(s) will comply with AS/NZS 3500.1 (as amended). |
| ☐ ☐ ⊘ | The planning proposal intends that a suitable static water supply is to be provided by a dam or river that complies with the DFES guidelines for acceptable sources of water for firefighting purposes.<br>Evidence is provided that:<br>• Demonstrates that the water level will be maintained above the top of the highest fire brigade suction point; and<br>• Approval has been obtained from the decision maker in consultation with the emergency services and is presented as an Addendum in this BMP. |
| ☐ ☐ ⊘ | The BPC Explanatory Notes in Appendix B.4: Water Supply introduce additional measures as best practice but voluntary. The following measure is adopted by the planning proposal:<br>The subject site is in a non-reticulated area. Pumping equipment is installed and will be powered by means other than the electricity network such as an appropriately powered and capacity petrol/diesel or onsite generator/electricity, driven pump, and be shielded against potential bushfire impact. |
| ☐ ☐ ⊘ | The BPC Explanatory Notes in Appendix B.4: Water Supply introduce additional measure as best practice but voluntary. The following measure is adopted by the planning proposal:<br>The subject site will have a reticulated water supply but is in an area designated as Area 2 on the Map of BPA and/or the local government area has known issues with water supply or pressure.<br>Water supply tank(s) and fittings dedicated to firefighting purposes (noting that combining drinking and firefighting uses of water is not recommended and may be contrary to relevant provisions), that satisfy the construction and design requirements established in the Guidelines, Appendix B4: Water Supply, will be provided. |
| ☐ ☐ ⊘ | The BPC Explanatory Notes in Appendix B.4: Water Supply introduce additional measure as best practice but voluntary. The following measure is adopted by the planning proposal:<br>The subject site is serviced by reticulated water. However, the distance from the public road (along which the fire hydrant is located) to the farthest part of the habitable building is greater than 70 metres, exceeding the reach of a hose reel. A water supply tank will be installed within the lot. |

Assessment Supporting Details:

A reticulated water supply will be installed throughout the site to comply with the technical requirements in Appendix D. The Hydrant and Booster Location Plan will be provided by the proponent in conjunction with this BMP.

[Refer to additional technical requirement information contained in Appendix D]

## 5.4 BPC 8.2: Development – Vulnerable Tourism Land Uses and Day Uses - Acceptable Solutions Assessment

### 5.4.1 Element 2: Siting and Design

**ELEMENT 2: SITING AND DESIGN (DEVELOPMENT – VULNERABLE TOURISM LAND USES LAND USES AND DAY USES)**

**EXPLANATORY INFORMATION**

Refer to Appendices B1 and B3 of this BMP for additional information and to *the bushfire protection measure implementation checklist in Section 6 for the APZ dimensions applicable to this planning proposal.*

**The Planning Assessment and the APZ**

This assessment is a 'planning assessment' being conducted for planning approval purposes only. All details of acceptable solution requirements are established in the Planning for Bushfire Guidelines (Guidelines) – WA Department of Planning, Lands and Heritage (DPLH, as amended).

> *Note the assessment is not conducted for building approval purposes. The derivation of 'determined' BAL ratings for building permit applications is not the intended outcome of this planning assessment. However, in limited situations, the presented indicative BAL rating might also be considered as 'determined' as an incidental outcome.*

To comply with the relevant acceptable solutions contained in the 'Bushfire Planning Guidelines', the subject planning proposal must demonstrate that the required minimum sized asset protection zone (APZ) - subject to location constraints and allowances established by the Guidelines - can be installed surrounding a habitable or specified building.

**Approved BMP's and the APZ Dimensions to be Implemented**

An approved BMP, unless stated otherwise, is only approving the installation of an APZ comprised of:

- The minimum dimensions that ensure the radiant heat impact of a bushfire (on building works) does not exceed 29 kW/m² (BAL-29); or
- For specific 'vulnerable' land uses, the minimum dimensions that ensures the radiant heat impact of a bushfire (on building works) does not exceed the level of radiant heat exposure stated in the applicable acceptable solution; or
- The specific minimum dimensions that may be applied through the application of an outcomes-based approach.

Consequently, the 'minimum' dimensions of the approved APZ are also the 'maximum' approved dimensions when installation of the APZ will require the modification/removal of native vegetation. Installing a larger dimensioned APZ, to lower the determined BAL rating of specific building works, will need additional approval from the relevant planning authority.

The following bushfire planning policy and guidance potentially limit installed APZ dimensions:

- SPP 3.7 Bushfire, Policy Objectives, cl. 5.5 states – "Prioritise the retention of native vegetation for biodiversity conservation, environmental protection and landscape amenity.
- SPP 3.7 Bushfire, Policy Outcomes, cl. 6.2 - establishes that clearing of native vegetation is to be avoided or minimised in managing or mitigating bushfire risk.
- The Guidelines, Appendix B2, B.2.1 states - "clearing or modification of native vegetation to reduce the radiant heat impact below 29 kW/m² is generally not supported."

| | The Outcome of State Planning Policy 3.7 Bushfire (and the BPC) to be Achieved |
|---|---|
| O2 | **Ensure siting and design solutions:**<br>• **Manage or mitigate the bushfire risk to people, property and infrastructure; and**<br>• **Avoid, or where unavoidable, minimises the clearing of native vegetation. (SPP 3.7, 6.2)** |

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| E2 | Acceptable Solutions Pathway - Compliance Statement |
| | The planning proposal is fully compliant with all applicable acceptable solutions and therefore achieves the required outcomes of this element. |
| | Alternative Pathway Applied to Demonstrate Ability to Achieve SPP 3.7 Outcomes |
| | N/A |

**ACCEPTABLE SOLUTIONS - ASSESSMENT STATEMENTS**

Check Box Legend: ☑ Relevant & met ☒ Relevant & not met ⃠ Not relevant

| **A2.1a Siting and design** | Applicable: Yes | Compliant: Yes |
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☑ ☐ ☐ Every habitable building achieves a radiant heat impact not exceeding 29 kW/m² (BAL-29).

☐ ☐ ⃠ A2.1a is not applicable to the subject planning proposal as it cannot be complied with and an alternative acceptable solution A2.2a (dealing with the same protection measure), is provided and establishes a higher level of radiant heat impact that will be considered for planning approval, if it can be satisfactorily demonstrated that the allowable constraints apply to the subject development site.

Assessment Supporting Details:

All short stay accommodation buildings achieve a radiant heat impact not exceeding 29 kW/m² (BAL-29) (Refer to Figure 3.2.1).

| **A2.1b Asset Protection Zone (APZ)** | Applicable: Yes | Compliant: Yes |
|---|---|---|

☐ ☐ ⃠ A2.1b is not applicable to the subject planning proposal because it is a requirement associated with the compliant application of A2.1a. Given A2.1a is not applicable to the subject planning proposal, A2.1b is also not applicable.

Where a habitable building(s) cannot be wholly within an area with a radiant heat impact not exceeding 29 kW/m² (BAL-29) in its pre-development state, an indicative APZ is to be provided and meet the following requirements for width, location and management:

☑ ☐ ☐ **APZ Width:** The APZ, when measured from the development site (or any external wall or supporting post or column), is of sufficient size to ensure the radiant heat impact of a bushfire does not exceed 29 kW/m² (BAL-29) to any part of the building, in all circumstances.

☑ ☐ ☐ **APZ Location – Option 1:** The indicative 'Planning BAL-29' APZ can be contained solely within the boundaries of the lot.

☐ ☐ ⃠ **APZ Location – Option 2:** The indicative 'Planning BAL-29' APZ cannot be contained solely within the boundaries of the lot. However, the relevant vegetation on the adjoining land / lot(s) is, and will continue to be, on an ongoing basis in perpetuity, low threat as per:

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| | • Clause 2.2.3.2 of AS 3959 (including non-vegetated land such as a sealed or unsealed road, or a water body); or<br>• The requirements of the Guidelines Appendix B.2, Table 9 – APZ technical requirements; or<br>• The alternative standard in the local planning scheme (when it exists). |
| ☑ ☐ ☐ | **APZ Management:** The APZ is (or can and will be) managed in accordance with the requirements established in the Guidelines, Appendix B.2 or the alternative standard in the gazetted local planning scheme (when it exists). |

Assessment Supporting Details:

The Asset Protection Zone required to achieve BAL-29 for all short stay accommodation buildings can be contained solely within the lot boundaries. As noted by the DPLH, the Foreshore Easement within the subject lot is under management control of the proponent (refer to Appendix E). The APZ will be managed and maintained in accordance with the Guidelines (refer Appendix B) and the 'low fuel zone' specification within the Shire of Capel Bushfire Mitigation Notice. A Landscape Management Plan will be prepared by the proponent which will outline the works to be completed to establish the APZ and detail the required ongoing maintenance.

| **A2.2a Siting in an area with a radiant heat impact exceeding 29 kW/m² (BAL-40 or BAL-FZ)** | Applicable: | No | Compliant: | - |
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| ☐ ☐ ⊘ | A2.2a is not applicable to the subject planning proposal because A2.1a can be complied with. |
| ☐ ☐ ⊘ | The habitable building(s) or structure(s) is sited with a radiant heat impact exceeding 29 kW/m² (i.e. BAL-40 or BAL-FZ) and is unable to establish an APZ in accordance with A2.1b. However, meeting **all** of the following established requirements allows consideration for approval: |
| ☐ ☐ ⊘ | • There are no bushfire construction standards required under the BCA; and |
| ☐ ☐ ⊘ | • There are demonstrated site characteristics and/or environmental values that prevent the achievement of a radiant heat impact not exceeding 29 kW/m2 (BAL-29); and |
| ☐ ☐ ⊘ | • It is acknowledged within the bushfire management plan that it is understood that in the event of a bushfire it is possible the building or structure will be damaged or destroyed; and |
| ☐ ☐ ⊘ | • The vegetation immediately surrounding the building(s) or structure(s) can and will be managed as defendable space in accordance with Appendix B.2, Table 9 – APZ technical requirements. |

Assessment Supporting Details:

None required.

| **A2.2b Asset Protection Zone (APZ)** | Applicable: | No | Compliant: | - |
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| ☑ ☐ ☐ | A2.2b is not relevant to the subject planning proposal because A2.2a is not applicable. |
| ☐ ☐ ⊘ | The provision of an APZ with width and location requirements in accordance with acceptable solution A2.1b (to result in BAL-29 exposure), cannot be achieved for the subject planning proposal.<br>Instead, the vegetation immediately surrounding the habitable building, to the extent possible within the lot, is to be managed as defendable space in accordance with Appendix B.2, Table 9 – APZ technical requirements. |

Assessment Supporting Details:

None required.

| **A2.3 Clearing of native vegetation** | Applicable: | Yes | Compliant: | Yes |
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☑ ☒ ⊘ The development avoids, or where unavoidable, minimises the clearing of native vegetation.

Assessment Supporting Details:

Some clearing of vegetation within the subject site is required to construct all proposed buildings (predominantly *Agonis flexuosa*). Trees will be retained within the development where possible. Where Class A forest vegetation is required to be managed to achieve BAL-29 for the short stay accommodation units, this has been minimised where possible by locating the buildings as far from the foreshore area as practicable.

Revegetation will occur along the Capel River, to increase ecological value and align with relevant special control area requirements. Refer section 2 for details on revegetation.

| **A2.4 Landscape management plan** | Applicable: | Yes | Compliant: | Yes |
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☑ ☐ ☐ A landscape management plan has been prepared to identify ongoing onsite vegetation management.

Assessment Supporting Details:

A Landscape Management Plan will be provided by the proponent to identify areas of revegetation and management. The Landscape Management Plan will specify all ongoing maintenance requirements (refer to section 2.3.2).

| **A2.5 Onsite shelter (if required)** | Applicable: | No | Compliant: | - |
|---|---|---|---|---|

☐ ☐ ⊘ An onsite shelter is proposed. It will comply with A3.5 Onsite shelter and can and will meet all the relevant following established requirements.

☐ ☐ ⊘ An onsite shelter building(s) is proposed for which there is sufficient separation distance from the bushfire prone vegetation to avoid exposure to a radiant heat flux exceeding 10 kW/m$^2$ (applying an assumed flame temperature of 1200 K).

☐ ☐ ⊘ The building(s) identified as suitable for onsite shelter is (or can and will be) designed in accordance with Building Code of Australia and the ABCB Design and Construction of Community Bushfire Refuges Handbook.

☐ ☐ ⊘ An open space area is proposed to function as an onsite shelter. There is sufficient separation distance between the open space area and the bushfire prone vegetation to avoid exposure to a radiant heat flux exceeding 2 kW/m$^2$ (applying an assumed flame temperature of 1200 K).

☐ ☐ ⊘ Pedestrian paths to any onsite shelter(s) are (or can and will be) provided and clearly signposted.

Assessment Supporting Details:

A Bushfire Emergency Plan (BEP) has been produced to accompany this BMP which addresses the need for early evacuation and any close requirements. An onsite shelter has not been deemed necessary for this development.

### 5.4.2 Element 3: Vehicular Access

| ELEMENT 3: VEHICULAR ACCESS (DEVELOPMENT – VULNERABLE TOURISM LAND USES AND DAY USES) | |
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| All details of acceptable solution requirements are established in the Planning for Bushfire Guidelines (Guidelines) – WA Department of Planning, Lands and Heritage (DPLH, as amended). When relevant, the 'Bushfire Management Plan Guidance for the Dampier Peninsula' (DPLH, 2021 Rev B), is also referenced.<br><br>The technical construction requirements for access types and components are established in the Guidelines Appendix B.3, Table 10 (certain information is copied and presented in Appendix C of this BMP). The local government will advise the proponent where different requirements are to apply and when any additional specifications such as those for signage and gates are to apply. These are included as an appendix if requested by the local government.<br><br>***Note:***<br><br>*The following understanding of what constitutes a 'road', and the stated definitions can be important considerations for assessments against an acceptable solution for Element 3.*<br>• *Guidelines Appendix B3: Vehicular Access, identifies a 'road' as being either a public road (that includes a no-through road) or a perimeter road. All other access types (i.e. emergency access ways, fire service access routes, battle-axes and private driveways) are considered a different class of access i.e. they are not 'roads'.*<br>• *SPP 3.7 defines 'no-through road' as "a cul-de-sac or dead end road".*<br>• *SPP 3.7 defines 'two-way access' as "vehicular access from a site in two different directions to at least two different suitable destinations". This allows for required access to potentially be provided by an emergency access way.* | |
| **O3** | **The Outcome of State Planning Policy 3.7 Bushfire (and the BPC) to be Achieved** |
| | **Ensure the design and capacity of vehicular access and egress provide:**<br>• **For efficient and effective evacuation to a suitable destination(s); and/or**<br>• **As a contingency measure for vulnerable land uses, an on-site shelter, where demonstrated appropriate, as a last resort option. (SPP 3.7, 6.3)** |
| **E3** | Acceptable Solutions Pathway - Compliance Statement |
| | The planning proposal is fully compliant with all applicable acceptable solutions and therefore achieves the required outcomes of this element. |
| | Alternative Pathway Applied to Demonstrate Ability to Achieve SPP 3.7 Outcomes |
| | N/A |

| ACCEPTABLE SOLUTIONS - ASSESSMENT STATEMENTS | | | | | |
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| Check Box Legend: | ☑ Relevant & met | ☒ Relevant & not met | ⃠ Not relevant | | |
| **A3.1 Public roads** | | | Applicable: | Yes | Compliant: Yes |
| ☑ ☐ ☐ | Public roads meet (or can and will meet) the technical requirements for minimum vertical clearance (4.5 metres) and minimum weight capacity (15 tonnes - includes bridges, culverts). | | | | |
| ☑ ☐ ☐ | Public roads meet (or can and will meet) the technical requirement <u>recommended</u> in the Guidelines in Appendix B3, B3.1 for a minimum horizontal clearance of 6 metres. | | | | |

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| ☑ ☐ ☐ | Public road technical requirements for minimum horizontal clearance, gradients and curves should be in accordance with the class of road as specified in the Public Works Engineering Australasia (IPWEA) subdivision guidelines, Liveable Neighbourhoods, Austroads Standards, any applicable or relevant Main Roads standards, supplements, policies and any applicable or relevant local government standards or policies.<br>The assessment conducted for the bushfire management plan indicates that it is likely that the proposed development can and will comply with the requirements.<br>However, the applicable class of road, the associated technical requirements and subsequent proposal compliance, will need to be confirmed with the relevant local government and/or Main Roads WA. |

Assessment Supporting Details:

Capel Drive, Forrest Road and Roe Road are likely to comply with all technical construction requirements for their class of road.

| **A3.2a Access routes** | Applicable: | Yes | Compliant: | Yes |
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| ☐ ☐ ⊘ | A3.2a is not applicable to the subject planning proposal because will not provide overnight accommodation and consequently is considered a day use. Therefore A3.2b is the applicable acceptable solution. |
| ☐ ☐ ⊘ | The subject site is in Area 1 (Urban) (Map of BPA). Public road access, with all-weather surfaces, is to be provided to at least one suitable destination. |
| ☑ ☐ ☐ | The subject site is in Area 2 (Map of BPA). Public road access, with all-weather surfaces, is provided in two different directions, to at least two different suitable destinations. |

Assessment Supporting Details:

Access to the development is provided via Forrest Road and Roe Road. Forrest Road provides the main entrance way and two-way access. Forrest Road also leads to Bussell Highway which provides two-way access to multiple suitable locations.

| **A3.2b Access routes for a day use with no overnight accommodation** | Applicable: | No | Compliant: | - |
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| ☑ ☐ ☐ | A3.2b is not applicable to the subject planning proposal as it intends to provide overnight accommodation and consequently not considered a day use. Therefore A3.2a is the applicable acceptable solution. |
| ☐ ☐ ⊘ | The subject site is in Area 1 (Map of BPA). Public road access, with all-weather surfaces, is (or can and will be) provided in one direction to a single suitable destination. |
| ☐ ☐ ⊘ | The subject site is in Area 2 (Map of BPA). Public road access, with all-weather surfaces, is (or can and will be) provided in two different directions, to at least two different suitable destinations. |
| ☐ ☐ ⊘ | The subject site is in Area 2 (Map of BPA). Public road access, with all-weather surfaces, is (or can and will be) only provided in one direction to a single suitable destination.<br>The Guidelines establish this as an acceptable solution when:<br>• It is demonstrated that secondary access (including an emergency access way), cannot be provided due to site constraints; and<br>• The proposed day use site is located within a residential built out area. |

☐ ☐ ⊘ The subject site is in Area 2 (Map of BPA). Public road access, with all-weather surfaces, is (or can and will be) only provided in one direction to a single suitable destination.

The Guidelines establish this as an acceptable solution when:

- It is demonstrated that secondary access (including an emergency access way), cannot be provided due to site constraints; and
- The required Bushfire Emergency Plan (BEP) provides for:
  - Closure during days forecasted to be an extreme or catastrophic fire danger rating and/or days a total fire ban is declared; and
  - The early evacuation of patrons and staff.

☐ ☐ ⊘ The subject site is in Area 2 (Map of BPA). Public road access, with all-weather surfaces, is (or can and will be) only provided in one direction to a single suitable destination.

The Guidelines establish this as an acceptable solution when:

- It is demonstrated that secondary access (including an emergency access way), cannot be provided due to site constraints; and
- The required Bushfire Emergency Plan (BEP) provides for non-operation during the bushfire season.

Assessment Supporting Details:

None required.

| **A3.3a No-Through Roads** | Applicable: | No | Compliant: | - |
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☐ ☐ ⊘ A3.3a is not applicable to the subject planning proposal because the subject site is in Area 1 (Urban) (Map of BPA), for which there is no limitation on no-through road lengths.

☑ ☐ ☐ The subject site is in Area 2 (Map of BPA) but A3.3a is not applicable to the subject planning proposal because access to the subject site is via a private driveway from a public road providing two-way access.

Consequently, vehicular access to the subject site does not have a no-through road component.

☐ ☐ ⊘ The subject site is in Area 2 (Map of BPA) but A3.3a is not applicable to the subject planning proposal as the proposal can satisfy the two-way access exception conditions established by A3.2b as the applicable acceptable solution for a day use that will not provide any overnight accommodation (refer to the A3.2b assessment).

Compliant access applying acceptable solution A3.2b as the relevant and overriding solution, can be via a single public road, of any length, to a single suitable destination. Consequently, the requirement for consideration of the length of a no-through road and the availability of an "intersection within 200 metres of the subject lot boundary from which two-way access is available", cannot logically be relevant to the subject proposal.

***Note To Decision Makers***

*Regarding A3.2b potentially negating the requirement to apply 3.3a. DPLH officer level advice has been received by BPP stating their agreement with the above interpretation of the applicable acceptable solutions and that consideration of the relative level of risk for the different use scenarios is incorporated into those acceptable solutions.*

*The intended risk outcome is to ensure that the residual level of risk to 'vulnerable' persons can be considered as equally acceptable or tolerable for both compliant overnight stay and day use only scenarios.*

*The application of this approach is identified in the DPLH SPP 3.7 Explanatory Note (25/11/2024), Part 3 where it is identified risk levels are being considered "… specific bushfire protection criteria for day uses …*

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| | *have been introduced. This acknowledges the lesser risk and increased opportunities for businesses approved for development to close on days with an extreme or catastrophic fire danger rating."* |
| ☐ ☐ ⊘ | The subject site is in Area 2 (Map of BPA); Access to the subject site is via a no-through public road that does not exceed the established maximum of 200 metres in length from the subject site boundary to an intersection where two-way access is provided. |
| ☐ ☐ ⊘ | The subject site is in Area 2 (Map of BPA): Access to the subject site / lot(s) is via a no-through public road that exceeds the established maximum of 200 metres in length from the proposed lot(s) boundary to an intersection where two-way access is provided.<br>It is demonstrated that there are site constraints and/or that there are no alternative design options to achieve the 200 metre maximum length.<br>Compliant two-way access within 200 metres from the proposed lot(s) boundary will be established through the provision (or existence) of a compliant emergency access way through the application of acceptable solution A3.4: Emergency Access Way. |
| ☐ ☐ ⊘ | The subject site is in Area 2 (Map of BPA); Access to the subject site is via a no-through public road that exceeds the established maximum of 200 metres in length from the proposed lot(s) boundary to an intersection where two-way access is provided.<br>However, the additional road length can be considered to satisfy the acceptable solution as the following three established requirements can be met: |
| ☐ ☐ ⊘ | 1. It is demonstrated that that an alternative access, including an emergency access way, cannot be provided due to site constraints; and |
| ☐ ☐ ⊘ | 2. The no-through road travels towards a suitable destination; and |
| ☐ ☐ ⊘ | 3. The balance of the no-through road that is greater than 200 metres from the subject site is:<br>• Wholly within a residential built-out area; or<br>• Wholly within an area designated Area 1 (Urban) on Map of BPA; or<br>• Potentially subject to radiant heat levels from adjacent bushfire prone vegetation not exceeding 12.5 kW/m$^2$ / BAL-LOW (Guidelines Figure 29). |
| Assessment Supporting Details:<br>None required. | |

| **A3.3b No-through roads technical requirements** | Applicable: | No | Compliant: | - |
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| ☑ ☐ ☐ | A3.3b is not applicable to the subject planning proposal because the assessment against A3.3a has established that vehicular access to the site does not have a no-through road component. |
| ☐ ☐ ⊘ | The no-through road meets (or can and will meet) the public road technical requirements for minimum vertical clearance (4.5 metres) and minimum weight capacity (15 tonnes - includes bridges, culverts). |
| ☐ ☐ ⊘ | The no-through road meets (or can and will meet) the public road technical requirement recommended in the Guidelines in Appendix B3, B3.1 for a minimum horizontal clearance of 6 metres. |
| ☐ ☐ ⊘ | The no-through road (i.e. public road) technical requirements for minimum horizontal clearance (excluding perimeter road), gradients and curves should be in accordance with the class of road as specified in the Public Works Engineering Australasia (IPWEA) subdivision guidelines, Liveable |

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| | Neighbourhoods, Austroads Standards, any applicable or relevant Main Roads standards, supplements, policies and any applicable or relevant local government standards or policies.<br>The assessment conducted for the bushfire management plan indicates that it is likely that the proposed development can and will comply with the requirements.<br>However, the applicable class of road, the associated technical requirements and subsequent proposal compliance, will need to be confirmed with the relevant local government and/or Main Roads WA. |
| ☐ ☐ ⊘ | The turnaround area/head meets (or can and will meet) the design requirements established by the Guidelines, Figure 30. |

Assessment Supporting Details:

None required.

| **A3.4 Emergency access way** | Applicable: | No | Compliant: | - |
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| ☑ ☐ ☐ | A3.4 is not applicable to the subject planning proposal because it has been assessed as compliant with A3.2a and 3.2b (and A3.3a and A3.3b when applicable), and an emergency access way is not required. |
| ☐ ☐ ⊘ | A3.4 is applicable to the subject planning proposal because an emergency access way currently exists and has been part of the subject planning proposal's ability to comply with A3.2a.<br>Consequently, it will apply with regard to meeting (or being able to meet), the specified technical requirements and ongoing management requirements, rather than its installation. |
| ☐ ☐ ⊘ | The requirements established for acceptable no-through road access to the subject site in A3.2 and A3.3 cannot be achieved. An emergency access way (EAW) is provided as the alternative access and can be considered as an acceptable solution, when the following established requirements are met: |
| ☐ ☐ ⊘ | • It is demonstrated that site constraints prevent the requirements of A3.2 and A3.3 being met; and |
| ☐ ☐ ⊘ | • The access way is no more than 500 metres in length, provides a through connection to a public road connecting to a public road network; and |
| ☐ ☐ ⊘ | • The access way meets the technical requirements (Guidelines Appendix B3, Table 10) for minimum horizontal clearance (Map of BPA Area 1 (Urban) = 6 metres and Area 2 = 10 metres), minimum vertical clearance (4.5 metres), minimum weight capacity (15 tonnes - includes bridges, culverts) and minimum inner radius of road curves (8.5 metres); and |
| ☐ ☐ ⊘ | • The access way meets the technical requirements (Guidelines Appendix B3, Table 10) for crossfalls and gradients for different surfaces and dips; and |
| ☐ ☐ ⊘ | • The access way will be signposted and, if gated, gates will open for the whole carriageway width and remain unlocked; and |
| ☐ ☐ ⊘ | • The proponent has obtained consent from the local government, that it will accept care, control and management responsibilities for the emergency access way. |

Assessment Supporting Details:

None required.

| **A3.5 Onsite shelter** | Applicable: | No | Compliant: | - |
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| ☑ ☐ ☐ | A3.5 is not applicable to the subject planning proposal because the proposal has been assessed as compliant with the relevant part of A3.2, A3.3 (if applicable) and A3.4 (if required), providing two-way access and an onsite shelter is not required. |
| ☐ ☐ ⦸ | The proposed development has a capacity of up to a maximum of 50 guests and employees at any one time and the requirement for compliant two-way access cannot be achieved. Consequently, an onsite shelter will be provided in accordance with A2.5. |
| ☐ ☐ ⦸ | The proposed development has a capacity of up to a maximum of 50 guests and employees at any one time and the requirement for compliant two-way access cannot be achieved and the bushfire practitioner considers an onsite shelter not necessary.<br>An outcomes-based approach may be prepared to determine the level of relevant risks to persons and property and whether adequate protection measures can be implemented to result in an acceptable or tolerable level of residual risk. |
| ☐ ☐ ⦸ | The proposed development has a capacity greater than 50 guests and employees at any one time, the requirement for compliant two-way access cannot be achieved and/or the bushfire practitioner considers an onsite shelter not necessary.<br>An outcomes-based approach may be prepared to determine the level of relevant risks to persons and property and whether adequate protection measures can be implemented to result in an acceptable or tolerable level of residual risk. |

Assessment Supporting Details:

None required.

| **A3.6 Fire service access route** | Applicable: | No | Compliant: | - |
|---|---|---|---|---|

***Note To Decision Makers***

*DPLH officer level advice has been received by BPP (email 18 November 2024) stating that this acceptable solution is applicable to a development application planning proposal when "it is necessary and serves a purpose" i.e. contributes meaningfully to mitigating risks associated with a bushfire event.*

*The DPLH response indicates a flexibility with the application of this acceptable solution that typically does not exist with other acceptable solutions for development applications (other than access route signage).*

*Consequently, what should apply as suitable firefighter access, in the opinion of the bushfire consultant, is presented as part of this acceptable solution assessment and there is no need to apply an outcomes-based assessment.*

*Note the following that have also been considered in determining this approach:*

- *The wording of this acceptable solution (Guidelines BPC 8 A3.6) includes "Where proposed lots adjoin classified vegetation". This is better aligned with application to subdivision proposals than a single existing lot and a development application;*
- *The Guidelines explanatory note B3.6 establishes that the fire service access route (FSAR) "can be provided as either an easement in gross over private or Crown land or ceded to the Crown as a reserve. In both approaches management of the FSAR is by the local government as the grantee of the easement or management body of the reserve".*

  *This explanation indicates the application of this acceptable solution is better aligned with its application to subdivision proposals than a development application involving a single existing lot; and*
- *The management and technical requirements for a FSAR are likely to be impractical and/or excessive for development on the majority of individual lots.*

*Where the bushfire consultant's assessment establishes that suitable firefighter access to adjoining classified vegetation (excluding Class G Grassland) is "necessary and serves a purpose", this assessment will identify that the acceptable solution is applicable and the appropriate requirements. The following is considered:*

- *If suitable firefighter access is required and currently exists or not;*
- *If suitable firefighter access is required and does not currently exist, the necessary physical requirements must give due regard to the use and scale of proposed development, the size of the lot and the identified bushfire hazard threat levels; and*
- *When is it appropriate to establish firefighter access that complies with the technical requirements for a FSAR (Guidelines Table 10).*

☐ ☐ ⊘ A3.6 is not applicable to the subject planning proposal because the subject lot(s) do not adjoin classified vegetation or only adjoin Class G Grassland (classified under AS 3959).

☐ ☐ ⊘ A3.6 is not applicable to the subject planning proposal because the provision of suitable firefighter access within or external to the subject lot(s) is not necessary and would serve no purpose. It is not a practical response to any identified bushfire hazard associated with the subject planning proposal.

☐ ☐ ⊘ The subject lot(s) adjoin classified vegetation that is not Class G Grassland (classified under AS 3959). Suitable firefighter access, in the opinion of the bushfire consultant, is considered 'necessary and serves a purpose'.

Suitable firefighter access to the classified vegetation is currently available. This firefighter access achieves the intent of the acceptable solution but applies a more pragmatic design than that established by the FSAR technical requirements and is aligned with the specifics of the planning proposal's site and use.

The requirements for maintenance of the defined firefighter access are referenced in the landowner responsibility checklists of this BMP.

☐ ☐ ⊘ The subject lot(s) adjoin classified vegetation that is not Class G Grassland (classified under AS 3959). Suitable firefighter access, in the opinion of the bushfire consultant, is considered 'necessary and serves a purpose'.

Suitable firefighter access to the classified vegetation is currently not available.

The physical requirements of the suitable firefighter access are established by the bushfire consultant within the assessment supporting details below (these will align at a minimum with typical 'firebreak' requirements when installed for firefighter access).

This firefighter access achieves the intent of the acceptable solution but applies a more pragmatic design than that established by the FSAR technical requirements and aligned with the specifics of the planning proposal's site and use.

The requirements for implementation and maintenance of the firefighter access are referenced in the landowner responsibility checklists of this BMP.

☐ ☐ ⊘ The subject lot(s) adjoin classified vegetation that is not Class G Grassland (classified under AS 3959). A fire service access route is to be provided for firefighter access to this vegetation. It can and will meet the following established requirements:

☐ ☐ ⊘
- The fire service access route is a through-route with no dead-ends, no further than 500 metres from a public road and will be signposted; and

☐ ☐ ⊘
- The fire service access route meets (or can and will meet) the technical requirements (Guidelines Appendix B3, Table 10) for minimum horizontal clearance (Map of BPA Area 1 (Urban) = 6 metres and Area 2 = 10 metres), minimum vertical clearance (4.5 metres), minimum weight capacity (15 tonnes - includes bridges, culverts) and minimum inner radius of road curves (8.5 metres); and

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| ☐ ☐ ⊘ | • The fire service access route meets (or can and will meet) the technical requirements (Guidelines Appendix B3, Table 10) for crossfalls and gradients for different surfaces and dips; and |
| ☐ ☐ ⊘ | • When gated, gates will open the whole carriageway width and can be locked by the local government and/or the emergency services, when keys are provided for each gate; and |
| ☐ ☐ ⊘ | • The proponent has obtained consent from the local government, that it will accept care, control and management responsibilities for the fire service access route (unless it is a Crown reserve managed by another entity). |

Assessment Supporting Details:

Adequate internal access is provided. Internal driveways provide access around the site with adequate access to most areas of adjoining vegetation, ensuring access to the adjoining vegetation near the Clubhouse as well as the over 55's dwellings located on 'lots' 45-52 and 'lot' 34 (Refer to Figure 1 and Figure 3.1.1).

An Asset Protection Zone (APZ) is required to be established and maintained to the north of the short-stay accommodation units. Ongoing access to this area will be necessary for long-term management and will also facilitate firefighter access in the event of a bushfire.

Refer also to 'Note to Decision Makers' at A3.6 above.

| **A3.7 Internal vehicular access and private driveways** | Applicable: | Yes | Compliant: | Yes |
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| ☐ ☐ ⊘ | A3.7 is not applicable to the subject planning proposal because the proposal does not contain internal vehicular access and private driveways longer than 70 metres. |
| ☑ ☐ ☐ | There are internal vehicular access and private driveways longer than 70 metres and the subject site meets (or can and will meet) all the following established requirements: |
| ☑ ☐ ☐ | • The private driveway meets (or can and will meet) the technical requirements (Guidelines Appendix B3, Table 10) for minimum horizontal clearance (6 metres) or where not required to comply with the Guidelines width, it meets the requirements of the Residential Design Codes and Development Control Policy 2.2 Residential Subdivision; and |
| ☑ ☐ ☐ | • The private driveway meets (or can and will meet) the technical requirements (Guidelines Appendix B3, Table 10) for minimum vertical clearance (4.5 metres), minimum weight capacity (15 tonnes - includes bridges, culverts) and minimum inner radius of road curves (8.5 metres); and |
| ☑ ☐ ☐ | • The private driveway meets (or can and will meet) the technical requirements (Guidelines Appendix B3, Table 10) for the gradients of different surfaces and dips; and |
| ☑ ☐ ☐ | • Passing bays are (or can and will be) installed every 200 metres with a minimum length of 20 metres and a minimum additional carriageway width of 2 metres i.e. the combined carriageway width of the passing bay and constructed private driveway will be a minimum 6 metres; and |
| ☑ ☐ ☐ | • The turnaround area/head meets (or can and will meet) the design and location (within 30m of main habitable building) requirements established by the Guidelines (refer to Figures 30 and 38). |

Assessment Supporting Details:

Internal access roads will be constructed to meet all technical construction requirements of the Guidelines (refer Appendix C). Multiple car parking bays are grouped along the internal road access which serve as passing bay areas as the internal road network exceeds 200m in length.

| **A3.8 Signage** | Applicable: | Yes | Compliant: | Yes |
|---|---|---|---|---|

***Note To Decision Makers***

*DPLH officer level advice has been received by BPP (email 18 November 2024) stating that this acceptable solution is applicable to a development application planning proposal when "it is necessary and serves a purpose" i.e. contributes meaningfully to mitigating risks associated with a bushfire event.*

*The DPLH response indicates a flexibility with the application of this acceptable solution that typically does not exist with other acceptable solutions for development applications (other than a fire service access route).*

*There are development application situations where this acceptable solution is unlikely to serve a purpose and would not contribute meaningfully to the reduction of bushfire risk.*

*This is likely to be the case for situations which have attributes such as; relatively small lot size, no or limited length no-through roads, good public road access network (surfaces, widths, gradients, visibility, connectivity etc), multiple suitable destinations easily, good road signage or in a built out areas or situations where persons are likely to be familiar with their surrounds.*

*Consequently, should the described signage requirements of the acceptable solution, in the opinion of the bushfire consultant, serve no purpose – justification for this position is presented as part of this acceptable solution assessment and there is no need to apply an outcomes-based assessment.*

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| ☐ ☐ ⊘ | A3.8 is not applicable to the subject planning proposal because the provision of signage is, in the opinion of the bushfire consultant, not necessary and would serve no purpose. Signage would not meaningfully contribute to mitigating risks associated with a bushfire event, for the subject proposal. |
| ☑ ☐ ☐ | Signage can and will be provided within the subject site, advising of where each access route travels to and the distance and general information on what to do in the event of a bushfire. |

Assessment Supporting Details:

Signage will be provided throughout the development. The BEP provides posters that will be displayed within each accommodation unit, providing guidance on exit strategies in the event of a bushfire.

### 5.4.3 Element 4: Water Supply

| ELEMENT 4: WATER SUPPLY (DEVELOPMENT –VULNERABLE TOURISM LAND USES AND DAY USES) | |
|---|---|
| All details of acceptable solution requirements are established in the Planning for Bushfire Guidelines (Guidelines) – WA Department of Planning, Lands and Heritage (DPLH, as amended). When relevant, the 'Bushfire Management Plan Guidance for the Dampier Peninsula' (DPLH, 2021 Rev B), is also referenced. | |
| **O4** | **The Outcome of State Planning Policy 3.7 Bushfire (and the BPC) to be Achieved** |
| | **Ensure that sufficient water is available and accessible for emergency services, to enable people, property and infrastructure to be defended from bushfire. (SPP 3.7, 6.4)** |
| **E4** | Acceptable Solutions Pathway - Compliance Statement |
| | The planning proposal is fully compliant with all applicable acceptable solutions and therefore achieves the required outcomes of this element. |
| | Alternative Pathway Applied to Demonstrate Ability to Achieve SPP 3.7 Outcomes |
| | N/A |

**ACCEPTABLE SOLUTIONS - ASSESSMENT STATEMENTS**

Check Box Legend: ☑ Relevant & met ☒ Relevant & not met ⃠ Not relevant

| **A4.1 Water supply** | Applicable: Yes | Compliant: Yes |
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| ☑ ☐ ☐ | Evidence is provided that a reticulated water supply, available for firefighting purposes, exists or can be provided. Hydrant connection(s) will be provided in accordance with the specifications established by the relevant water supply authority (refer also to hydrant location information in Appendix D of this BMP). |
| ☐ ☐ ⃠ | The provision of or the specifications of a reticulated water supply cannot be met. Evidence is provided that a sufficient, sustainable and accessible non-reticulated water supply, dedicated to firefighting purposes, can and will be provided in accordance with the specifications established in the Guidelines, Appendix B4: Water Supply: |
| ☐ ☐ ⃠ | • The planning proposal is for a vulnerable land use development (not camping ground). For <u>each habitable building</u> a water supply, dedicated to firefighting purposes, will be stored in tanks at 10,000 litres of water per 500 $m^2$ of floor area up to 50,000 litres in total; and |
| ☐ ☐ ⃠ | • The planning proposal is for a 'camping ground' vulnerable land use development. The required water supply dedicated to firefighting purposes is to be determined at the discretion of the local government and this will be complied with. Evidence is provided of the determined requirements and is presented as an Addendum in this BMP; and |
| ☐ ☐ ⃠ | • The above ground water supply tank(s), dedicated to firefighting purposes (and tank stand(s) when applicable), will be constructed of non-combustible material and as necessary, will comply with AS/NZS 3500.1(as amended).<br>This includes not using the same water supply for both domestic use and firefighting purposes. If a combined use tank(s) is to be used, it will separate the storage compartments in accordance with the provisions of the standard (i.e. internal installation of double partition walls); and |
| ☐ ☐ ⃠ | • The outlet connection fitting for the water supply tank(s), dedicated to firefighting purposes, will have a full flow valve and a 50 mm male camlock coupling; and |

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| ☐ ☐ ⊘ | • All above-ground, exposed water supply pipes and fittings will be metal and positioned facing away from the source of bushfire hazard and/or shielded against potential bushfire impact – to allow access by emergency services; and |
| ☐ ☐ ⊘ | • The planned provision of the water supply tank(s) will consider locations relative to the bushfire hazard. Location of the tank(s) and management of vegetation will ensure vegetation will not exist over or against the tank(s) and that sufficient separation exists to limit the potential bushfire impact.<br>Due consideration will also be given to the provision of sufficient separation from vegetation and/or shielding for the protection of firefighters accessing the water supply; and |
| ☐ ☐ ⊘ | • An unobstructed, hardened ground surface, for emergency services vehicle access, can and will be installed within 4 metres of the water supply outlet (refer to Figure 39, Guidelines); and |
| ☐ ☐ ⊘ | • It is proposed for a water supply tank outlet(s) is to be remote from the tank, the local government and DFES will have been consulted regarding the application and location. The determined requirements are presented as an Addendum in this BMP. |
| ☐ ☐ ⊘ | Planned below ground water supply tank(s), dedicated to firefighting purposes, will have at least a 200 mm diameter access hole – or a suitable inspection opening - to allow tankers or emergency services vehicles to refill direct from the tank, with the outlet location clearly marked on the surface. As necessary, the tanks(s) will comply with AS/NZS 3500.1 (as amended). |
| ☐ ☐ ⊘ | The planning proposal intends that a suitable static water supply is to be provided by a dam or river that complies with the DFES guidelines for acceptable sources of water for firefighting purposes.<br>Evidence is provided that:<br>• Demonstrates that the water level will be maintained above the top of the highest fire brigade suction point; and<br>• Approval has been obtained from the decision maker in consultation with the emergency services and is presented as an Addendum in this BMP. |
| ☐ ☐ ⊘ | The BPC Explanatory Notes in Appendix B.4: Water Supply introduce additional measures as best practice but voluntary. The following measure is adopted by the planning proposal:<br>The subject site is in a non-reticulated area. Pumping equipment is installed and will be powered by means other than the electricity network such as an appropriately powered and capacity petrol/diesel or onsite generator/electricity, driven pump, and be shielded against potential bushfire impact. |
| ☐ ☐ ⊘ | The BPC Explanatory Notes in Appendix B.4: Water Supply introduce additional measure as best practice but voluntary. The following measure is adopted by the planning proposal:<br>The subject site will have a reticulated water supply but is in an area designated as Area 2 on the Map of BPA and/or the local government area has known issues with water supply or pressure.<br>Water supply tank(s) and fittings dedicated to firefighting purposes (noting that combining drinking and firefighting uses of water is not recommended and may be contrary to relevant provisions), that satisfy the construction and design requirements established in the Guidelines, Appendix B4: Water Supply, will be provided. |
| ☐ ☐ ⊘ | The BPC Explanatory Notes in Appendix B.4: Water Supply introduce additional measure as best practice but voluntary. The following measure is adopted by the planning proposal:<br>The subject site is serviced by reticulated water. However, the distance from the public road (along which the fire hydrant is located) to the farthest part of the habitable building is greater than 70 metres, exceeding the reach of a hose reel. A water supply tank will be installed within the lot. |

Assessment Supporting Details:

A reticulated water supply will be installed throughout the site to comply with the technical requirements in Appendix D. The Hydrant and Booster Location Plan will be provided by the proponent in conjunction with this BMP.

[Refer to additional technical requirement information contained in Appendix D]

# 6 RESPONSIBILITY CHECKLISTS

**EXPLANATORY INFORMATION**

This section of the BMP sets out the responsibilities of the relevant entity or person for:

- The initial implementation of the required bushfire protection measures and their timing; and
- The ongoing maintenance of the required bushfire protection measures to ensure their continued effectiveness.

Note: Protection measures that may be recommended by the bushfire consultant in the BMP section titled "Additional Recommended Bushfire Protection Measures' are not included in the Responsibility Checklists (at least initially).

The reason for this is the additional measure(s) are either:

- Provided as additional risk management advice to the proponent and it is up to them to choose to apply; or
- Part of an outcomes-based approach being applied to satisfy the required outcomes of SPP 3.7. Consequently, the need for their application (which would create a responsibility) is currently subject to assessment and approval by the decision maker.

  When their application is established by planning approval, the responsibility checklists in this BMP will be required to be updated.

## 6.1 Protection Measure Implementation Checklist

**TABLE 6.1**
**PROPONENT/LANDOWNER RESPONSIBILITIES PRIOR TO SALE/OCCUPANCY/OPERATION**

| No. | IMPLEMENTATION OF BUSHFIRE PROTECTION MEASURES<br>Measures Established Under SPP 3.7 / Guidelines |
|---|---|
| 1 | Install an Asset Protection Zone (APZ) surrounding habitable buildings. It must:<br>1. Consist of non-vegetated areas and low bushfire threat vegetation, able to be maintained in perpetuity in a low threat state, by complying with the established APZ technical requirements (refer to the Guidelines Appendix B2 and Appendix B3 of this BMP); and<br>2. Be located within the boundaries of the lot except for any allowable variances allowed and discussed in the assessment against the bushfire protection criteria in Section 5, Element 2: Siting and design, and the relevant APZ acceptable solution. (Refer also to the illustrated APZ on the Property Bushfire Management Statement in Section 6.3); and<br>1. Have dimensions equal to the minimum distances corresponding to the BAL-29 rating as these are the distances approved for implementation when this BMP is approved by the decision maker (refer to the insert table below for the BAL-29 dimensions). Exceptions to this APZ dimension limitation exists when:<br>• The relevant building/structure has a lower certified ('determined') BAL rating - either via the assessment in this BMP or a subsequent BAL Assessment Report - in which case the dimensions corresponding to the applicable BAL rating in the table below will apply; or<br>• The relevant building is associated with a vulnerable tourism land use, can be used as an on-site shelter and is to be subject to radiant heat exposure not exceeding 10 kW/m$^2$, in which case the corresponding dimensions in the table below are to apply; or |

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| | • The larger dimensioned APZ does not require the modification/removal of native vegetation.<br>*Note 1: If a BAL rating lower than BAL-29 can be achieved by the proposed building works but native vegetation is required to be modified or removed to establish the associated larger APZ, ensure prior approval has been received from the relevant authority before installing.*<br>*Note 2: Greater APZ dimensions than those derived from the above information may be established by a Local Government's Section 33 Notice Under the Bush Fires Act 1954. When relevant to the subject development this is identified below in this table and must be given due regard when installing the APZ.*<br>*Note 3: Greater APZ dimensions than those derived from the above information are established via the application of the Building Code of Australia and its bushfire resistance requirements for the subject Class 9 vulnerable use buildings. This is identified below in this table and must be given due regard when installing the APZ.* |
| 2 | Ensure the construction of the private driveways / internal vehicular access complies with the technical requirements stated and/or referenced in Section 5.3 of the BMP at Element 3: Vehicular access, A3.1 Private driveways. |
| 3 | Install the reticulated firefighting water supply and hydrants to comply with the technical requirements stated and/or referenced in Section 5.3 of the BMP at Element 4: Water supply, A4.1 Water supply. |
| 4 | The short-term accommodation component of the development is a 'vulnerable land use'. Ensure the required signage is provided within the subject site, advising of where each access route travels to and the distance and general information on what to do in the event of a bushfire. Comply with the site-specific requirements established in the BMP at Element 3: Vehicular access, A3.7 Signage. |
| 5 | A purchaser, occupier and/or operator of the site must be made aware of the existence of this approved BMP and provided with access to a copy and be informed of their ongoing responsibilities it contains. |
| 6 | The development is a 'vulnerable land use', and a Bushfire Emergency Plan (BEP) has been produced for site operations. Complete all relevant actions contained within the 'Site Preparation Procedure'. |
| 7 | The development is a 'vulnerable land use', and a Landscape Management Plan (LMP) has been prepared for site operations. Ensure the purchaser, occupier and/or operator of the site is made aware of the existence of the LMP and provided with access to a copy. |
| IMPLEMENTATION OF BUSHFIRE PROTECTION MEASURES<br>Measures Established by this BMP as a Required Additional Measure | |
| 8 | This BMP has not established any 'Required Additional Bushfire Protection Measures', that are additional to and/or a variation to those established by the applicable acceptable solutions of the bushfire protection criteria and that must be implemented. |
| IMPLEMENTATION OF BUSHFIRE PROTECTION MEASURES<br>Measures Established by a Local Government's Section 33 Notice Under the Bush Fires Act 1954 | |

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| 9 | Install the required firebreaks, providing emergency access within the lot, to the stated specifications established by the Shire of Capel Bushfire Mitigation Notice.<br>*Note: This is not a requirement under the land use planning requirements established by SPP 3.7 Bushfire or the associated Guidelines. However, for informative purposes, the existence of this responsibility is noted in this checklist and must be given due regard.* |
| 10 | Install the required asset protection zone surrounding relevant buildings to the dimensions and technical requirements established by the BPP: Enter the exact name of the relevant LG and Notice when these are greater than the dimensions corresponding to either the BAL-29 rating or the 'determined' BAL rating(s) for the relevant buildings stated in implementation responsibility No. 1 above.<br>*Note: This is not a requirement under the land use planning requirements established by SPP 3.7 Bushfire or the associated Guidelines. However, for informative purposes, the existence of this responsibility is noted in this checklist and must be given due regard.* |
| IMPLEMENTATION OF BUSHFIRE PROTECTION MEASURES<br>Measures Established by the Building Code of Australia (Vol. 1 and 2 of the National Construction Code) | |
| 11 | Inform builders engaged to construct dwellings/additions and/or other relevant structures on a lot, of the existence of this approved Bushfire Management Plan (BMP).<br>The existence of the BMP identifies that the development site is within a designated bushfire prone area. It indicates that bushfire construction standards (corresponding to an assessed bushfire attack level (BAL) for the building), may need to be applied to satisfy the bushfire performance requirements of the BCA.<br>The BMP typically will only provide indicative BAL ratings. A separate assessment will likely be required to determine the applicable BAL rating (and produce a BAL Certificate), once site plans and conditions are established as the post development state.<br>This BMP may also establish, as a 'Required Additional Bushfire Protection Measure', that bushfire construction requirements to be applied must be those corresponding to a specified higher BAL rating.<br>Compliance with the current Building Code of Australia (Volumes 1 and 2 of the National Construction Code), will require certain bushfire resistant construction requirements be applied to residential buildings in bushfire prone areas (i.e., Class 1, 2 and 3 and associated Class 10a buildings and decks) and Class 9 vulnerable use buildings. Other classes of buildings may also be required to comply with these construction when established by the relevant authority or if identified as a 'Required Additional Bushfire Protection Measure' bushfire protection measure within the BMP.<br>The deemed to satisfy solutions that will meet the relevant bushfire performance requirements are found in AS 3959 – Construction of Building in Bushfire Prone Areas (as amended) and for Class 1 and associated Class 10a buildings only, the NASH Standard - Steel Framed Construction in Bushfire Areas (as amended).<br>*Note: This is not a requirement under the land use planning requirements established by SPP 3.7 Bushfire or the associated Guidelines. However, for informative purposes, the existence of this responsibility is noted in this and must be given due regard.* |

## 6.2 Protection Measure Maintenance Checklist

| TABLE 6.2<br>LANDOWNER/OCCUPIER – MAINTENANCE OF BUSHFIRE PROTECTION MEASURES | |
|---|---|
| No. | MAINTENANCE OF BUSHFIRE PROTECTION MEASURES<br>Measures Established Under SPP 3.7 / Guidelines |
| 1 | Annually review and enact the following maintenance responsibilities established in this approved BMP for the development site prior to the bushfire season. |
| 2 | The site's use is a 'vulnerable use', and a Bushfire Emergency Plan (BEP) has been produced for site operations. Complete all relevant actions contained within the 'Site Preparation Procedure' annually prior to the bushfire season. |
| 3 | Maintain the Asset Protection Zone (APZ) surrounding all habitable buildings by applying:<br>1. The Established APZ Technical Requirements: The APZ must consist of non-vegetated areas and low bushfire threat vegetation maintained in perpetuity in the low threat state by complying with the established APZ technical requirements (refer to the Guidelines Appendix B2 and Appendix B3 of this BMP); and<br>2. The Established APZ Dimensions: Refer to the first item of the protection measure implementation checklist in the preceding Table 6.1 in which the required dimensions have been established. Where these include the authority to maintain offsite land as part of the APZ this is identified below. The required dimensions will be either:<br>(a) The dimensions corresponding to the determined BAL rating(s) applicable to each habitable building. This ensures the building's constructed bushfire resistance continues to align with its calculated potential exposure to flame contact and radiant heat; or<br>(b) Where a relevant building is associated with a vulnerable tourism land use and is to be used as an on-site shelter – then the dimensions corresponding to a radiant heat exposure of 10 kW/m2; or<br>(c) In the absence of an applicable determined BAL rating for a building/structure, the dimensions should be no greater than the minimum distances corresponding to the BAL-29 rating.<br>*Note 1: Where greater APZ dimensions than those derived from the above information are established by a Local Government's Section 33 Notice Under the Bush Fires Act 1954 these must be given due regard when maintaining the APZ. When this requirement is relevant to the subject development it is identified in the implementation checklist in the preceding Table 6.1 and below in this table.*<br>*Note 2: Greater APZ dimensions than those derived from the above information are established via the application of the Building Code of Australia and its bushfire resistance requirements for the subject Class 9 vulnerable use buildings. This is identified in the implementation checklist in the preceding Table 6.1 and below in this table and must be given due regard when maintaining the APZ.* |
| 4 | Maintain the private driveways / internal vehicular access to comply with the technical requirements stated and/or referenced in Section 5.3 of the BMP at Element 3: Vehicular access, A3.1 Private driveways. |
| 5 | The development is a 'vulnerable land use'. Maintain the required signage within the subject site, advising of where each access route travels to and the distance and general information on what to do in the event of a |

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|---|---|
| | bushfire. Comply with the site specific requirements established in the BMP at Element 3: Vehicular access, A3.7 Signage or A3.8 Signage. |
| 6 | Maintain the reticulated firefighting water supply and hydrants to comply with the technical requirements stated and/or referenced in Section 5.3 of the BMP at Element 4: Water supply, A4.1 Water supply |
| 7 | When the property changes ownership or occupancy, to assist with the ongoing maintenance of the implemented bushfire protection measures, ensure that the relevant person(s) is aware of the BMP, and the responsibilities it contains. Provide access to a copy of the BMP and the Bushfire Emergency Plan (BEP). |
| | MAINTENANCE OF BUSHFIRE PROTECTION MEASURES<br>Measures Established by a Local Government's Section 33 Notice Under the Bush Fires Act 1954 |
| 8 | Maintain the required firebreaks, providing emergency access within the lot, to the stated specifications established by the Shire of Capel Bushfire Mitigation Notice.<br>*Note: This is not a requirement under the land use planning requirements established by SPP 3.7 Bushfire or the associated Guidelines. However, for informative purposes, the existence of this responsibility is noted in this checklist and must be given due regard.* |
| 9 | Maintain the required asset protection zone surrounding relevant buildings to the dimensions and technical requirements established by the BPP: Enter the exact name of the relevant LG and Notice when these are greater than the dimensions identified in the implementation checklist in the preceding Table 6.1 corresponding to either the BAL-29 rating or the 'determined' BAL rating(s) for the relevant buildings.<br>*Note: This is not a requirement under the land use planning requirements established by SPP 3.7 Bushfire or the associated Guidelines. However, for informative purposes, the existence of this responsibility is noted in this checklist and must be given due regard.* |
| | MAINTENANCE OF BUSHFIRE PROTECTION MEASURES<br>Measures Established by the Building Code of Australia (Vol. 1 and 2 of the National Construction Code) |
| 10 | Prior to any future building work, inform the builder of the existence of this approved Bushfire Management Plan (BMP).<br>The BMP identifies that the development site is within a designated bushfire prone area and states the indicative (or determined) BAL rating(s) that may (or will) be applied to buildings/structures. A BAL assessment report may be required to confirm determined ratings and will be required when stated ratings are only indicative. BAL certificates will need to be produced to accompany building applications.<br>The BMP may also establish, as a 'Required Additional Bushfire Protection Measure', that bushfire construction requirements to be applied must be those corresponding to a specified higher BAL rating.<br>Compliance with the current Building Code of Australia (Volumes 1 and 2 of the National Construction Code), will require certain bushfire resistant construction requirements be applied to residential buildings in bushfire prone areas (i.e., Class 1, 2 and 3 and associated Class 10a buildings and decks) and Class 9 vulnerable use buildings. Other classes of buildings may also be required to comply with these construction when established by the relevant authority or if identified as a 'Required Additional Bushfire Protection Measure' bushfire protection measure within the BMP. |

| | |
|---|---|
| | The deemed to satisfy solutions that will meet the relevant bushfire performance requirements are found in AS 3959 – Construction of Building in Bushfire Prone Areas (as amended) and for Class 1 and associated Class 10a buildings only, the NASH Standard - Steel Framed Construction in Bushfire Areas (as amended).<br><br>*Note: This is not a requirement under the land use planning requirements established by SPP 3.7 Bushfire or the associated Guidelines. However, for informative purposes, the existence of this responsibility is noted in this checklist and must be given due regard.* |

# APPENDIX A: DETAILED BAL ASSESSMENT DATA AND SUPPORTING INFORMATION

## A1: BAL Assessment Inputs Common to the Method 1 and Method 2 Procedures

### A1.1: FIRE DANGER INDICES (FDI/FDI/GFDI)

When using Method 1 the relevant FDI value required to be applied for each state and region is established by AS 3959:2018, Table 2.1. Each FDI value applied in Tables 2.4 – 2.7 represents both the Forest Fire Danger Index (FFDI) and a deemed equivalent for the Grassland Fire Danger Index (GFDI), as per Table B2 in Appendix B. When using Method 2, the relevant FFDI and GFDI are applied.

The values may be able to be refined within a jurisdiction, where sufficient climatological data is available and in consultation with the relevant authority.

| | | | | | | |
|---|---|---|---|---|---|---|
| Relevant Jurisdiction: | WA | Region: | Whole State | Method 1 | Applied FDI: | 80 |

### A1.2: VEGETATION ASSESSMENT AND CLASSIFICATION

**Vegetation Types and Classification**

In accordance with AS 3959:2018 Clauses 2.2.3 and C2.2.3.1, all vegetation types within 100 metres of the 'site' (defined as "the part of the allotment of land on which a building stands or is to be erected"), are identified and classified. Any vegetation more than 100 metres from the site that has influenced the classification of vegetation within 100 metres of the site, is identified and noted. The maximum excess distance is established by AS 3959: 2018 Clause 2.2.3.2 and is an additional 100 metres.

Classification is also guided by the Visual Guide for Bushfire Risk Assessment in WA (WA Department of Planning February 2016) and any relevant FPA Australia practice notes.

**Modified Vegetation**

The vegetation types have been assessed as they will be in their natural mature states, rather than what might be observed on the day. Vegetation destroyed or damaged by a bushfire or other natural disaster has been assessed on its expected re-generated mature state. Modified areas of vegetation can be excluded from classification if they consist of low threat vegetation (refer to Appendix B) and that any required active management can be expected to continue in perpetuity, and this can be adequately justified.

**The Influence of Ground Slope**

Where significant variation in effective slope exists under a consistent vegetation type, these will be delineated as separate vegetation areas to account for the difference in potential bushfire behaviour, in accordance with AS 3959:2018 Clauses 2.2.5 and C2.2.5.

| THE INFLUENCE OF VEGETATION GREATER THAN 100 METRES FROM THE SUBJECT SITE | |
|---|---|
| Vegetation area(s) within 100m of the site whose classification has been influenced by the existence of bushfire prone vegetation from 100m – 200m from the site: | None |
| Assessment Statement: | No vegetation types exist close enough, or to a sufficient extent, within the relevant area to influence classification of vegetation within 100 metres of the subject site. |

| VEGETATION AREA 1 | | | | | | |
|---|---|---|---|---|---|---|
| Classification | **A. FOREST** | | | | | |
| Types Identified | Open forest A-03 | | | | | |
| Exclusion Clause | N/A | | | | | |
| Effective Slope | Measured | flat 0 degrees | Applied Range (Method 1) | Upslope or flat 0 degrees | | |
| Foliage Cover (all layers) | 30-70% | Shrub/Heath Height | 1-2m | Tree Height | Up to 30m | |
| Justification Comments: | The classified vegetation is a long strip of forest vegetation along the Capel River outside the subject lot as well as to the south and east on neighbouring land. The vegetation consists of a variety of native trees, dominated by Corymbia calophylla, with scattered shrubs, Xanthorrhoea and tall, unmanaged grasses. Canopy cover up to 70% throughout. | | | | | |
| Post Development Assumptions: | Vegetation is reasonably expected to remain as is in perpetuity. | | | | | |


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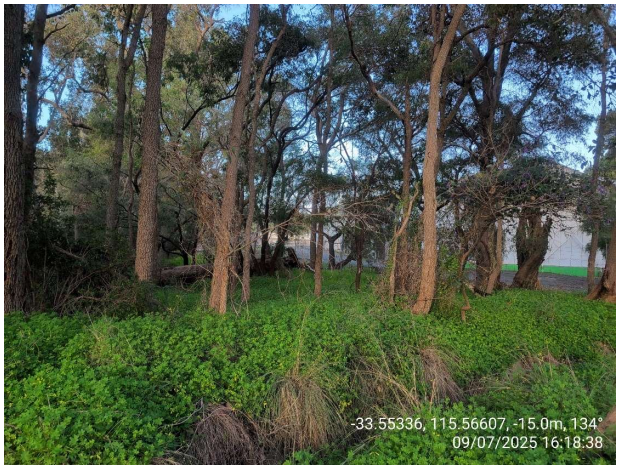


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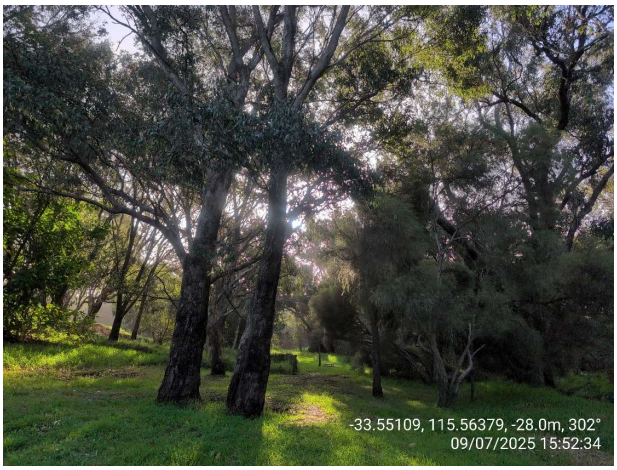
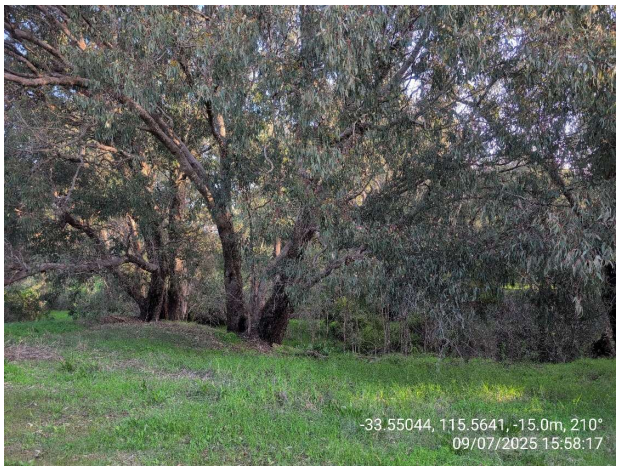
|  |  |
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| VEGETATION AREA 2 | | | | | | |
|---|---|---|---|---|---|---|
| Classification | **A. FOREST** | | | | | |
| Types Identified | Open forest A-03 | | | | | |
| Exclusion Clause | N/A | | | | | |
| Effective Slope | Measured | d/slope 5 degrees | Applied Range (Method 1) | Downslope >0-5 degrees | | |
| Foliage Cover (all layers) | 30-70% | Shrub/Heath Height | 1-2m | Tree Height | Up to 30m | |
| Justification Comments: | The classified vegetation is a long strip of forest vegetation along the Capel River, running through the subject site. The vegetation consists of a variety of native trees, dominated by Corymbia calophylla, with scattered shrubs such as Bracken and tall, unmanaged grasses.<br>It is acknowledged that this bank is locally steep (typically >5°), however the following justification is provided by a Level 3 BPAD Accredited Practitioner to designate an applied Effective Slope of >0-5°:<br>• The assessed effective slope is required to represent the slope that "most significantly influences fire behaviour" (AS 3959:2018, CB4) – with respect to fire within the relevant area of vegetation, as it will impact the subject receiver.<br>• The steeper sloped land, closest to the receiver, that supports Forest vegetation, will present a limited fire run of less than 20 metres. A fully developed forest fire, applying the relevant default AS3959 inputs cannot exist entirely on the sloped land (represented in my explanation as an inability to support the flame depth of a fully developed fire).<br>• Consequently, separately identifying (classifying) just the sloped land as a distinct area of vegetation with an effective slope greater than 5° and modelling the fire for this vegetation would significantly overestimate the potential impact of bushfire on this sit | | | | | |
| Post Development Assumptions: | This area of vegetation is reasonably expected to remain as it is in perpetuity. Additional revegetation is planned along the Capel River foreshore, extending the area of forest vegetation (refer to section 2.3). | | | | | |


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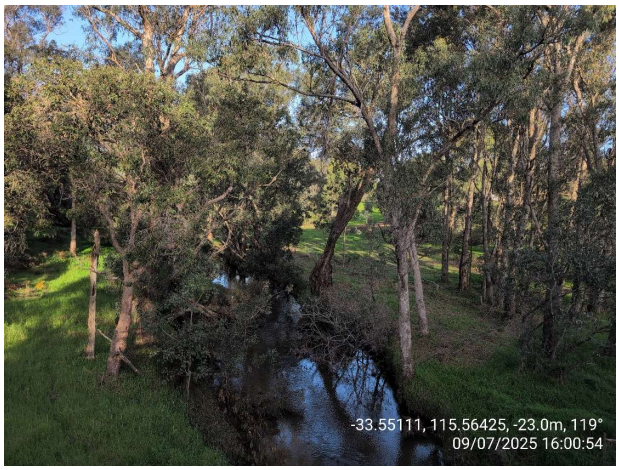


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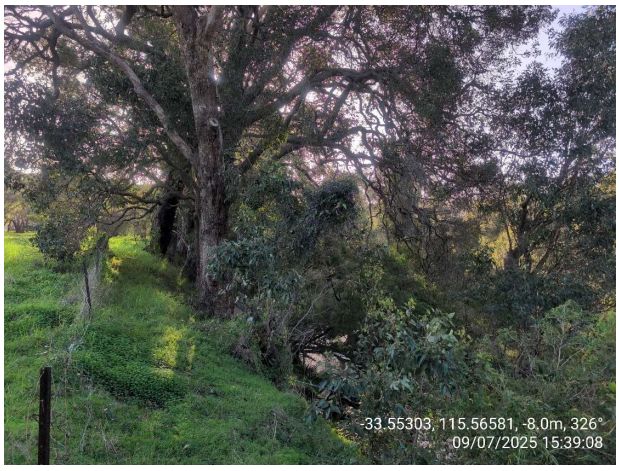


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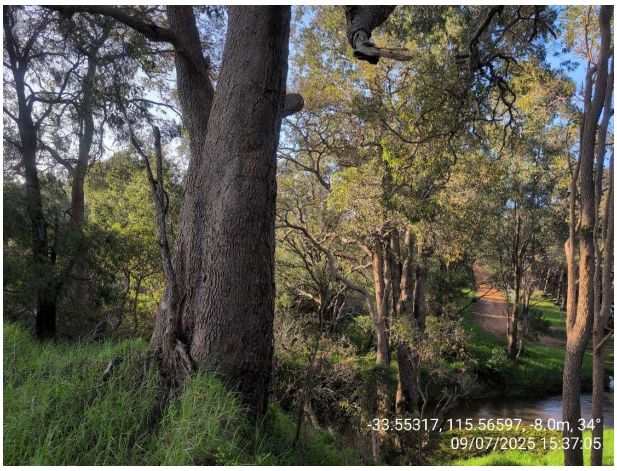
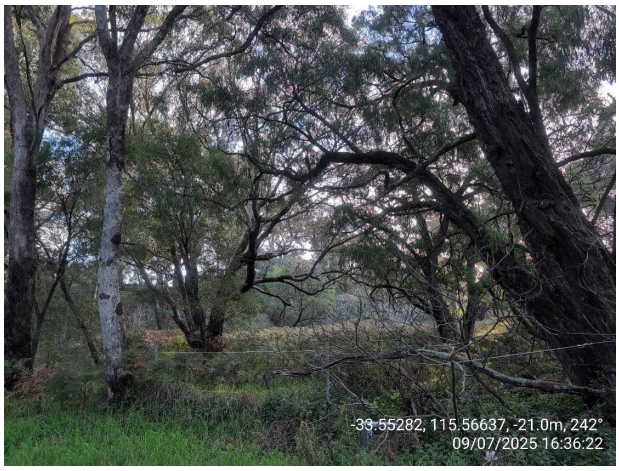
|   |   |
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| VEGETATION AREA 3 | | | | | | |
|---|---|---|---|---|---|---|
| Classification | **B. WOODLAND** | | | | | |
| Types Identified | Woodland B-05 | | Low woodland B-07 | | | |
| Exclusion Clause | N/A | | | | | |
| Effective Slope | Measured | flat 0 degrees | Applied Range (Method 1) | Upslope or flat 0 degrees | | |
| Foliage Cover (all layers) | 30-70% | Shrub/Heath Height | N/A | Tree Height | Up to 30m | |
| Justification Comments: | Treed area, dominated by Agonis flexuosa, with a grassy under storey. | | | | | |
| Post Development Assumptions: | The area of vegetation within the APZ is expected to be managed and maintained to a low threat state in perpetuity. Trees can be retained within this area, with adequate canopy separation and management of the under storey (refer Appendix C and the Shire of Capel Bushfire Mitigation Notice for APZ requirements).<br>The Foreshore Easement within the lot can and will be managed by the proponent (refer to Appendix E for confirmation of management control). | | | | | |


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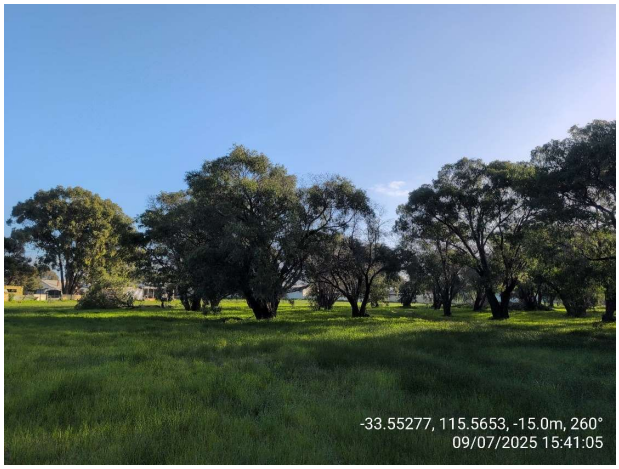


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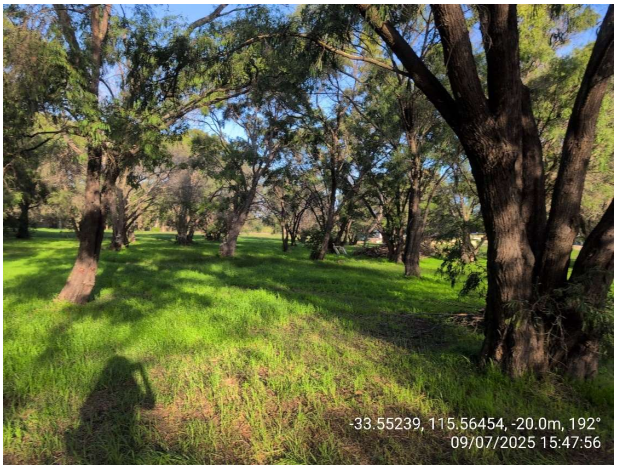


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| VEGETATION AREA 4 | | | | | | |
|---|---|---|---|---|---|---|
| Classification | **B. WOODLAND** | | | | | |
| Types Identified | Woodland B-05 | | Low woodland B-07 | | | |
| Exclusion Clause | N/A | | | | | |
| Effective Slope | Measured | d/slope 5 degrees | Applied Range (Method 1) | Downslope >0-5 degrees | | |
| Foliage Cover (all layers) | 10-30% | Shrub/Heath Height | N/A | Tree Height | Up to 30m | |
| Justification Comments: | Treed area, dominated by Agonis flexuosa, with a grassy under storey. Some areas have been grazed by horses, however this has been classified based on the worst case state. | | | | | |
| Post Development Assumptions: | Area outside the APZ will be subject to revegetation and has been classified as Class A – Forest to account for the highest bushfire impact to the development (refer to section 2.3). The area of vegetation within the APZ is expected to be managed and maintained to a low threat state in perpetuity. Trees can be retained within this area, with adequate canopy separation and management of the under storey (refer Appendix C and the Shire of Capel Bushfire Mitigation Notice for APZ requirements). | | | | | |


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| VEGETATION AREA 5 | | | | | | |
|---|---|---|---|---|---|---|
| Classification | **G. GRASSLAND** | | | | | |
| Types Identified | Sown pasture G-26 | | Open tussock G-23 | | | |
| Exclusion Clause | N/A | | | | | |
| Effective Slope | Measured | flat 0 degrees/upslope | Applied Range (Method 1) | | Upslope or flat 0 degrees | |
| Foliage Cover (all layers) | 10-30% | Shrub/Heath Height | N/A | Tree Height | Up to 30m | |
| Justification Comments: | Large, open areas of grass vegetation with scattered trees. | | | | | |
| Post Development Assumptions: | Grassland within the subject site will be managed and maintained to a low threat state as per APZ standards (refer Appendix C) and The Shire of Capel Bushfire Mitigation Notice.<br>Areas outside the subject site are reasonably expected to remain as grassland in perpetuity. | | | | | |


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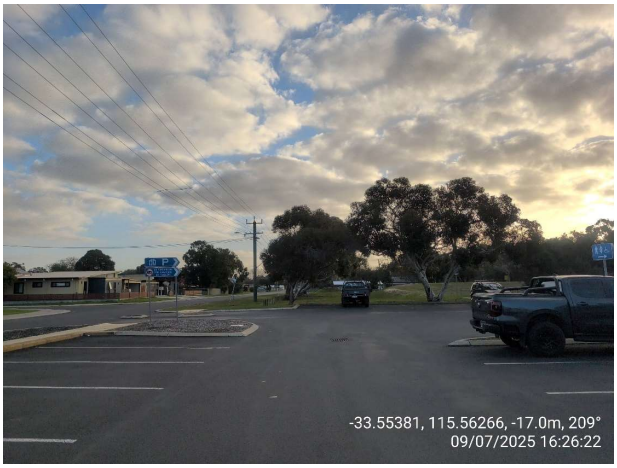
| VEGETATION AREA 6 | | | | | | |
|---|---|---|---|---|---|---|
| Exclusion Clause | 2.2.3.2 (e) Non-vegetated areas and (f) Low threat vegetation - minimal fuel condition. | | | | | |
| Effective Slope | Measured | N/A | Applied Range (Method 1) | N/A | | |
| Foliage Cover (all layers) | - | Shrub/Heath Height | - | Tree Height | - | |
| Justification Comments: | Largely non-vegetated areas such as buildings, car parks and roads have been excluded under 2.2.3.2(e). Other excluded areas include those that consist of low threat vegetation / minimal fuel condition, which includes private and managed gardens, lawns and public open spaces (i.e. to the west of the development). | | | | | |
| Post Development Assumptions: | These areas are reasonably expected to remain as low threat in perpetuity. Areas within the subject site have been excluded as low threat post development as these areas will be managed and maintained to an APZ standard in perpetuity. Refer Appendix C. | | | | | |

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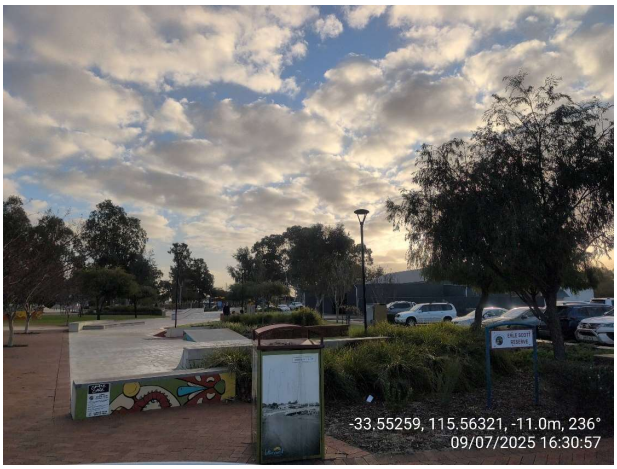


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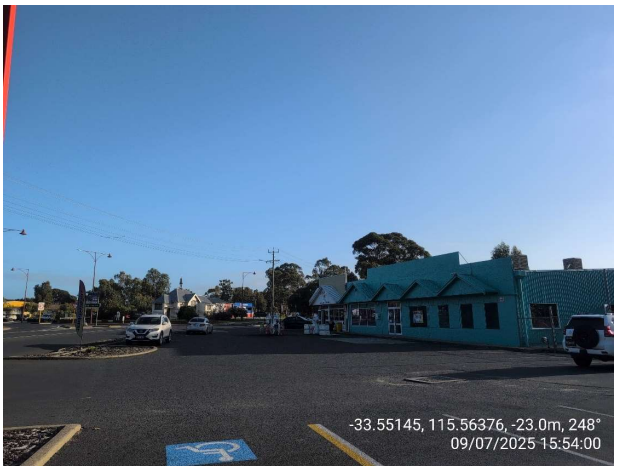


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## A1.3: EFFECTIVE SLOPE

### EXPLAINING THE ASSESSMENT METHODOLOGY APPLIED BY BUSHFIRE PRONE PLANNING

**DEFINITION:** Effective slope is "the slope under that classified vegetation which most influences the bushfire attack" (AS 3959:2018, Clause 1.5.11).

"The effective slope under the classified vegetation is not the same as the average slope for the land surrounding the site of the proposed building. The effective slope is that slope which most significantly influences bushfire behaviour" (AS 3959:2018, Clause CB4).

The slope is described as upslope, flat or downslope when viewed from an exposed element (e.g., building) and looking towards the vegetation. It is measured in degrees.

[Note: Additional relevant guidance provided by AS 3959:2018 and NSW RFS, Planning for Bushfire Protection (2019) is incorporated into the applied assessment methodology and is presented at the end of this explanation.]

### COMPOUND SLOPES UNDER VEGETATION AND DETERMINING SLOPE SIGNIFICANCE

**Non-Linear Slopes:** When the slope of ground under the vegetation out to the distance to be assessed (100 m or further if necessary), is not a straight line or nearly straight line slope, then it is made up of several different slopes i.e., it is a compound slope. The different slope angles and lengths must be factored into the determination of the effective slope value to be applied. Different slopes will potentially influence the bushfire rate of spread and intensity, both increasing and decreasing it.

**Significant Slope:** The AS 3959:2018 bushfire attack level determination methodology, with default inputs, models a fully developed bushfire. Therefore, a 'significant' slope is one that will significantly influence bushfire behaviour. To be 'significant' the length of the slope must be 'sufficient' to support a fully developed fire on that slope. The angle of a significant slope could be the determined effective slope for the area of classified vegetation if it is the one that 'most influences the bushfire attack'.

**Sufficient Slope Length:** Is a slope that will, as a minimum, allow the entire flame depth (flaming zone) of a fully developed fire (100m flame width) to exist on that slope.

The expected flame depth of a fully developed bushfire is a function of the length of time the flaming phase will exist on a section of the fuel bed (the 'residence time') and the bushfire's 'rate of spread'. For a given rate of spread, longer residence times result in greater flame depths. Greater flame depths are correlated with greater flame temperatures and greater flows of radiant heat.

The primary factors that will increase the residence time are:

- Heavier fine fuel loads of grass, leaf litter, twigs, bark etc less than 6mm in width and existing within the surface and near surface layers (and elevated fuel layers when contiguous with the base layers); and
- A greater percentage of larger fine fuels within the fuel load.

The primary factors that increase the rate of spread (apart from fire weather factors), include finer fuels, drier fuels, horizonal continuity of fuel and steeper upward ground slope in the direction of fire travel.

Example values:

- Residence Time: Grassfire 5 – 15 seconds, Forest fire 25 -50 seconds.
- Rate of Spread: Grassfires of a few km/hr are considered fast moving, 5-10 km/hr is common and fastest in the order of 25km/hr. Forest fire typically recorded in metres/hour with 1-1.5 km/hr being considered fast moving and fastest in the order of 3–4 km/hr.
- Flame Depth: More typically, a few metres for grasses to tens of metres for forest fires.

**An Isolated Slope:** For scenarios where there is a single significant slope (based on the above criteria) additional consideration would need to be given to the time and distance consumed by a bushfire still in its 'developing' phase. This will require due consideration be given to how it is potentially ignited i.e., from a single or multiple points, as this will influence the time and distance required to fully develop. For such scenarios, a normally significant slope may not be sufficiently long. It may be necessary to determine the potential bushfire impact more accurately by

justifying the application of a lesser effective slope, or a lower threat vegetation classification, or calculating a reduced head fire width (using short fire run modelling).

**Determined Effective Slope:** Only a 'significant' slope can potentially be the effective slope by itself. In which case, for a defined area of classified vegetation area, the worst significant slope under that vegetation is to apply.

The table below presents Bushfire Prone Planning's considerations applied to assessing short and/or compound slopes in determining the effective slope.

| Slope Length (m) | Considered a Significant Slope | Considerations in Determining the Effective Slope |
|---|---|---|
| < 5 | No | Where these short slopes exist as part of a compound slope under an area of classified vegetation, they can be ignored as they will not influence the fire behaviour in that vegetation. |
| 5-20 | Will Vary | These slopes will have a range of influence on fire behaviour from very little to a degree of influence that must be accounted for to some extent by the effective slope value that is applied (i.e., with a greater length - apply to a greater extent). But the actual slope of these shorter slopes is less likely to be applied as it is not a 'significant' length. |
| 20-30 | Possibly - Likely | The same considerations applied to the 5-20m slope lengths should be applied here. However, more justification would need to be presented to support an assessment of not 'significant'.<br>For these slope lengths, consideration must be given more broadly to the potential level of risks associated with a bushfire event in this location. The risk level will be a function of the bushfire hazard threat levels (direct attack mechanisms) within the immediate and broader assessment area as influenced by local topography, vegetation extents and types and the exposure and vulnerability of persons and/or buildings/structures to these threats. Higher consequent risk levels require greater precaution meaning these length slopes should be considered 'significant', and vice versa.<br>Consider the potential for a bushfire on adjoining or nearby land be a source of ignition and/or pre-heating to vegetation on the subject slope.<br>Consider if vegetation on the slope is likely be ignited by a single ignition point or is multipoint ignition possible from bushfire an adjoining slopes or the surrounding area. Single point ignition will require a fire to travel further before being fully developed (DFES considers less than 100m fire runs may be considered a short fire run for forest, woodland and scrub vegetation classifications, RFS NSW applies 150m).<br>Isolated slopes of this length are less likely to be considered significant as compared to when part of a compound slope. |
| >30 | Yes | Likely to always be a significant slope unless isolated (i.e., exists alone) – in which case, justifying the application of a lesser effective slope, or a lower threat vegetation classification, or calculating a reduced head fire width, are approaches that may justifiably be applied. |

**BPP Approach - Slope Variation Within Areas of Vegetation**

When multiple 'significant' slope lengths with large differences in degrees of effective slope (or different applicable slope ranges when AS 3959:2018 Method 1 is applied), exists under a single vegetation classification, these will be delineated as separate vegetation areas of classified vegetation to account for the difference in potential bushfire behaviour and impact, in accordance with AS 3959:2018 clauses 2.2.5 and C2.2.5.

**Effective Slope Variation Due to Multiple Development Sites**

When the effective slope, under a single area of bushfire prone vegetation, will vary significantly relative to multiple proposed development sites (exposed elements), then the effective slopes corresponding to each of the different

locations, are separately identified. The relevant (worst case) effective slope is determined in the direction corresponding to the potential directions of fire spread towards the subject building(s).

**AS 3959:2018 EFFECTIVE SLOPE DETERMINATION - GUIDANCE**

The Standard presents a broad set of guidance statements that indicate the intent of deriving an effective slope value for use in calculations, rather than detailing the 'in the field' determination process. These include:

- Highlighting the importance of the value by stating "The slope of the land under the classified vegetation has a direct influence on the rate of fire spread, the severity of the fire and the ultimate level of radiant heat flux" (Clause C2.2.5). [Note: A common rule of thumb is that for every 10 degrees of upslope, a fire will double its rate of spread if moving in the direction of the prevailing wind].
- "It may be necessary to consider the slope under the classified vegetation for distances greater than 100 m in order to determine the effective slope for that vegetation classification) … (i.e. the vegetation within 100 m) (Clause C2.2.5).
- "Where there is more than one slope within the classified vegetation, each slope shall be individually assessed, and the worst case Bushfire Attack Level shall apply" (Clause 2.2.5).

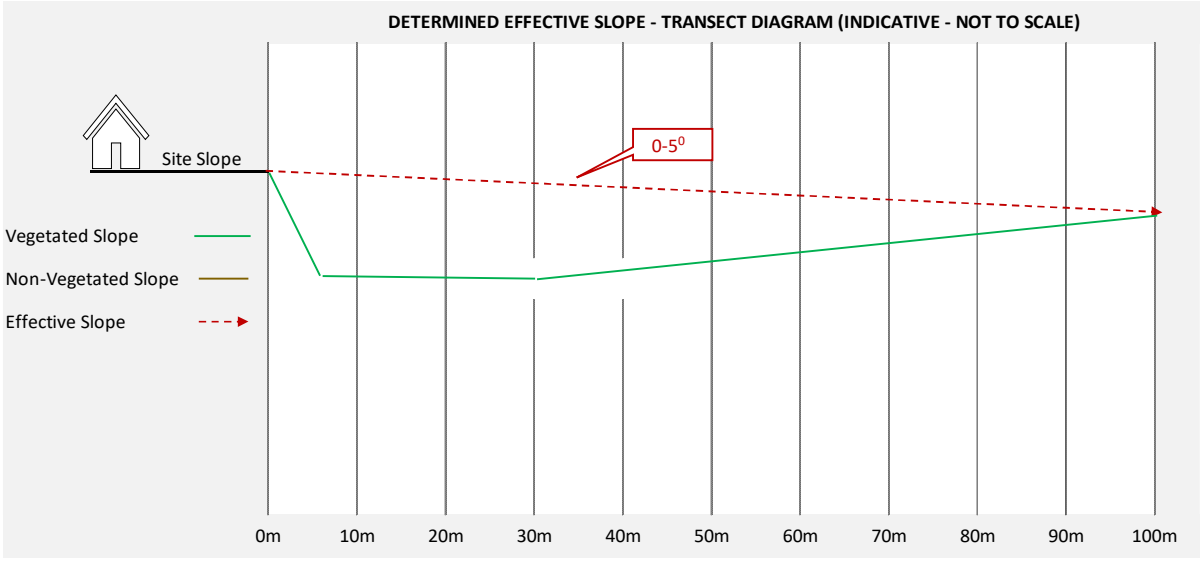
**NSW RFS 2019, PLANNING FOR BUSHFIRE PROTECTION - APPENDIX A1.5 - ADDITIONAL DETERMINATION GUIDANCE**

- "In identifying the effective slope - it may be found that there are a variety of slopes covering different distances within the vegetation. The effective slope is considered to be the slope under the vegetation which will most significantly influence the bushfire behaviour for each aspect. This is usually the steepest slope. In situations where this is not the case, the proposed approach must be justified".
- "Vegetation located closest to an asset may not necessarily be located on the effective slope".

**SITE ASSESSMENT DETAILS - EXPLANATION & JUSTIFICATION**

The effective slopes determined from the site assessment are recorded in Table 3.2 of this Bushfire Management Plan.

Explanation and justification of their determination is presented below.



## A1.4: SEPARATION DISTANCE

**Measuring**

The separation distance is the distance in the horizontal plane between the receiver (building/structure or area of land being considered) and the edge of the classified vegetation (AS 3959:2018, clause 2.2.4)

The relevant parts of a building/structure from which the measurement is taken is the nearest part of an external wall or where a wall does not exist, the supporting posts or columns. Certain parts of buildings are excluded including eaves and roof overhangs.

The edge of the vegetation, for forests and woodlands, will be determined by the unmanaged understorey rather than either the canopy (drip line) or the trunk (AS 3959:2018, clause C2.2.5).

**Measured Separation Distance as a Calculation Input**

If a separation distance can be measured because the location of the building/structure relative to the edge of the relevant classified vegetation is known, this figure can be entered into the BAL calculation. The result is a determined BAL rating.

**Assumed Separation Distance as a Calculation Input**

When the building/structure location within the lot is not known, an assumed building location may be applied that would establish the closest positioning of the building/structure relative to the relevant area of vegetation.

The assumed location would be based on a factor that puts a restriction on a building location such as:

- An established setback from the boundary of a lot, such as a residential design code setback or a restrictive covenant; or
- Within an established building envelope.

The resultant BAL rating would be indicative and require later confirmation (via a Compliance Report) of the building/structure actual location relative to the vegetation to establish the determined BAL rating.

**Separation Distance as a Calculation Output**

With the necessary site specific assessment inputs and using the AS 3959:2018 bushfire modelling equations, the range of separation distances that will correspond to each BAL rating (each of which represents a range of radiant heat flux), can be calculated. This has application for bushfire planning scenarios such as:

- When the separation distance cannot be measured because the exact location of the exposed element (i.e., the building, structure or area), relative to classified vegetation, is yet to be determined.

  In this scenario, the required information is the identification of building locations onsite that will correspond to each BAL rating. That is, indicative BAL ratings can be derived for a variety of potential building/structure locations; or

- The separation distance is known for a given building, structure or area (and a determined BAL rating can be derived), but additional information is required regarding the exposure levels (to the transfer of radiant heat from a bushfire), of buildings or persons, that will exist at different points within the subject site.

The calculated range of separation distances corresponding to each BAL rating can be presented in a table and/or illustrated as a BAL Contour Map – whichever is determined to best fit the purpose of the assessment.

For additional information refer to the information boxes in Section 3 'Bushfire Attack Levels (BAL) - Understanding the Results and Section 3.2. 'Interpretation of the BAL Contour Map'.

**SITE ASSESSMENT DETAILS - EXPLANATION & JUSTIFICATION**

For the subject development/use the applicable separation distances values are derived from calculations applying the assessed site data. They are an output value, not an input value and therefore are not presented or justified in this appendix.

The derived values are presented in Section 3, Table 3.1 and illustrated as a BAL contour map in Figure 3.2.

# APPENDIX B: GUIDANCE – BUSHFIRE ATTACK LEVELS AND ASSET PROTECTION ZONES

## B1: Understanding Bushfire Attack Level (BAL) Ratings

**BUSHFIRE ATTACK LEVEL**

**IMPORTANT**

*It is not the purpose of this 'planning' BMP to derive a 'determined' BAL rating (and associated minimum APZ dimensions), that will apply to an existing or future habitable or specified building, for the purpose of establishing its bushfire resistant construction requirements in accordance with the Building Code of Australia (contained in the NCC).*

*However, in limited situations a 'determined' BAL can be an incidental outcome of the planning assessment.*

**BUSHFIRE ATTACK LEVEL (BAL)**

The potential transfer (flux/flow) of radiant heat from a bushfire to a receiving object is measured in kW/m$^2$. The AS 3959:2018 Bushfire Attack Level (BAL) determination methodology establishes the ranges of radiant heat flux that correspond to each bushfire attack level.

These ranges of radiant heat transfer are titled BAL-LOW, BAL-12.5, BAL-19, BAL-29, BAL-40 and BAL-FZ.

For certain classes of building/structure the bushfire performance requirements and the associated deemed to satisfy solutions are established by the Building Code of Australia (Vol. 1 & 2 of the NCC). For most jurisdictions the relevant building classes are 1, 2, 3, 9 and associated 10a.

The assessed BAL rating that applies to a specific building/structure determines the bushfire resistant construction requirements for those works in accordance with AS 3959:2018 - *Construction of buildings in bushfire prone areas,* or for Class 1 buildings, the NASH Standard – *Steel framed construction in bushfire areas (NS 300 2021),* as the recognised deemed to satisfy solutions.

**DETERMINED BAL RATINGS**

A BAL can only be classed as 'determined' and therefore apply to an existing or future building/structure when:

1. The building/structure final design and position on the lot are known and the stated separation distance from classified bushfire prone vegetation exists and can justifiably be expected to remain in perpetuity; or

2. The building/structure will always remain subject to the same BAL regardless of:
    (a) The retention of all existing classified vegetation either onsite or offsite; and
    (b) Its design or position on the lot - including, as relevant and necessary, accounting for any regulatory or enforceable building setbacks from lot boundaries (i.e. R-codes, restrictive covenants and defined building envelopes).

Consequently, a BAL Certificate may be able to be issued for a BAL stated in the BMP when it can be considered 'determined'. However, this is not the typical outcome but an incidental one.

If the BMP can derive determined BAL(s), the BAL Certificate(s) required for submission with building applications could potentially be provided, using the BMP as the supporting assessment data.

**INDICATIVE AND CONDITIONAL BAL RATINGS**

An 'Indicative BAL' indicates the highest BAL rating that exists for the applied set of parameters that have been applied to the site's assessment. Because the potential remains for these parameters to be varied, they are unable to be considered a 'determined' BAL.

A 'Conditional BAL' establishes the BAL rating that will be considered as a 'Determined BAL' once the stated requirements (i.e. the conditions), which may require approval by the relevant authority, are implemented and subsequently confirmed as being met.

Relevant conditions that may need to be met include:

- The location of future development sites being identified accurately and/or modified; and/or
- Classified vegetation being modified or removed (after obtaining any required approvals from the relevant authority), to establish the required vegetation separation distances.

A BAL Certificate cannot be issued for an indicative or conditional BAL rating – only for a 'Determined BAL'.

**BAL RATINGS FOR BUILDING VERSUS PLANNING PURPOSES – ASSESSMENT & REPORTING REQUIREMENTS ARE DIFFERENT**

**Building Permit Applications**

The relevant requirements are established in accordance with the WA Building Act 2011 and Building Regulations 2012 which reference the application of the Building Code of Australia (within the National Construction Code).

The required BAL rating is a 'determined' BAL rating (stated on a BAL Certificate) and supported by the requisite assessment details. Typically, this will be a Bushfire Attack Level (BAL) Report produced specifically for this purpose.

The required supporting assessment information may be derived from a Bushfire Management Plan (BMP) when a 'determined' BAL can be derived for a planning proposal. This is possible when the specific conditions discussed under 'Determined BAL Ratings' above, can be met, as an incidental outcome.

**Planning Proposal Applications**

The relevant requirements are established in accordance with the Planning and Development Act 2005, LPS Regulations 2015, SPP 3.7 Bushfire and the associated Guidelines.

To comply with the relevant acceptable solutions contained in the Guidelines, the subject planning proposal must demonstrate that the required minimum sized asset protection zone (APZ) - subject to location constraints and allowances established by the Guidelines - can be installed surrounding a habitable or specified building.

The minimum dimensions are those that ensure the potential radiant heat impact on the relevant buildings does not exceed 29 kW/$m^2$ from fire in any surrounding types of classified vegetation. This is the upper limit of the range of radiant heat flux corresponding to the BAL-29 rating.

Consequently, the BAL ratings identified in a Bushfire Management Plan (BMP) only need to be 'indicative' - although 'determined' ratings may be derived as an incidental outcome when relevant conditions are met (discussed under 'Determined BAL Ratings' above).

The indicative BAL-29 dimensioned APZ is not necessarily the APZ that will be required to be implemented and maintained surrounding any subject building/structure that exists as per an approved planning proposal. Refer to Appendix B3 in this BMP for additional information.

## B2: BAL Contour Map Interpretation

**THE BAL CONTOUR MAP**

The Bushfire Attack Level (BAL) contour map is a diagrammatic representation of the outcome of the bushfire attack level assessment that has been conducted.

The map presents six shaded radiant heat contours extending out from each area of classified vegetation. Each coloured contour represents a different BAL rating (BAL-LOW, BAL-12.5, BAL-19, BAL-29, BAL-40 and BAL-FZ) and corresponds to a set range of potential radiant heat transfer ($kW/m^2$), in accordance with AS 3959:2018 BAL determination methodology.

The highest BAL rating contour that an exposed element (building, person or other defined element), is partly or fully located within, is the BAL rating that will apply to that element.

The width of each BAL contour:

- Will vary dependent on the BAL rating it represents; and
- The assessed potential bushfire behaviour that considers site specific vegetation types, fuel loads, ground slopes and fire weather; and
- Represents the minimum and maximum vegetation separation distances corresponding to the BAL rating it represents.

For 'post development' BAL contour maps, the areas of classified vegetation applied to the production of the BAL contours, are those that will remain at the intended end state of the subject development once earthworks, clearing and/or landscaping and/or re-vegetation have been completed.

**IMPORTANT**

*A BAL contour map is typically constructed for planning assessment and application purposes rather than building permit application purposes.*

*The BAL ratings identified from a BAL contour map will likely only be 'indicative' of what can be achieved – with planning compliance for this factor being satisfied when BAL-29 is indicated.*

*However, future building works require a 'determined' BAL rating for building permit applications and a BAL Certificate. The required 'determined' BAL rating is not necessarily able to be derived from the BAL contour map. There are only limited scenarios where this is possible. Refer to Appendix B1 and B3 for additional information.*

*Consequently, a subsequent assessment of the site data and associated report for building application purposes may be required to determine the BAL rating that is to apply for building purposes. Note: If approval from the relevant authority needs to be obtained for native vegetation modification and/or removal this also establishes that a subsequent assessment and report will be required.*

## B3: The Asset Protection Zone (APZ)

### THE APZ – DESCRIPTION, TECHNICAL REQUIREMENTS AND DIMENSIONS

#### DESCRIPTION AND PURPOSE

An asset protection zone (APZ) is an area surrounding a habitable or specified building that is:

- Not vegetated; and/or
- Supports retained or planted vegetation that can be considered to present a low bushfire threat as a result of;
    - Low flammability and/or higher moisture content characteristics; and/or
    - Minimal fuel loads (either naturally or as a result of continual maintenance).

The primary objectives of establishing an APZ are:

1. To ensure a reduction in the exposure of the building/structure to the bushfire direct attack mechanisms (threats) of flame contact, radiant heat transfer and ember attack, by establishing appropriate separation distances from each identified area of classified vegetation.

   These distances are measured from the nearest part of an external wall and/or the supporting posts of building parts without external walls; and
2. To ensure a reduction in the exposure of the building/structure to bushfire indirect attack mechanisms (threats) by:
    - Preventing surface fire spreading to the building/structure;
    - Minimising the potential for tree strike that can decrease building/structure resilience to bushfire direct attack mechanisms; and
    - Limiting the potential for consequential fires to impact the building/structure by eliminating, reducing, moving away and/or shielding consequential fire fuels.

      These fuels include accumulated debris, stored combustible/flammable items and constructed combustible items. Note that consequential fire, typically ignited by embers, is the primary cause of building loss in a bushfire event; and
3. To provide a defendable space for firefighting activities.

#### TECHNICAL REQUIREMENTS

**Established by the Guidelines**

The relevant technical requirements for an APZ are established in the Planning for Bushfire Guidelines (DPLH/WAPC) (as amended), Appendix B2: Siting and design and available online at Planning WA - SPP 3.7 Bushfire

**Established by the Relevant Local Government**

Certain LGA may state technical requirements to be complied with that vary from and/or are additional to those established by the Guidelines.

Refer to the notice issued annually by the relevant local government under s33 of the Bushfires Act 1954 (e.g. Bushfire Risk Reduction Notice or Firebreak and Hazard Reduction Notice etc). These technical requirements may also be established by their gazetted local planning scheme. Refer to the ratepayer notice and/or the local government's website for the current version.

**Information Published by the Bushfire Centre of Excellence (DFES)**

The book titled Firewise Gardening in Western Australia (2024), is a good source of relevant information and is available online at https://dfes.wa.gov.au/hazard-information/bushfire/bcoe#bushfire-resources.

**DIMENSIONS**

The dimensions of the APZ that will be the responsibility of a landowner to implement and/or maintain around a habitable or specified building/structure, are stated as the separation distances between these buildings and each identified area of classified vegetation. These distances will be site specific and dependant on variables which include:

- The potential bushfire behaviour in the identified vegetation which is dependent on factors including vegetation types, fuel loads, ground slopes and fire weather;
- The intended use of the site, with vulnerable uses requiring greater safety margins; and
- The constructed bushfire resistance of the subject building/structure (typically corresponding to a BAL rating or kW/m$^2$ level of radiant heat exposure).

**Dimensions Established by the BAL Rating of the Subject Building/Structure**

These minimum separation distances, to be installed and maintained, correspond to a 'determined' BAL rating and align the building's applied level of bushfire resistant construction to its potential level of exposure to flames, radiant heat and embers from the bushfire (note: this will not account for any exposure from significant consequential fires closer to the building).

The dimensions should be stated within a Bushfire Attack Level Report (BAL Report) produced for building application purposes. They may also be identified in an associated Bushfire Management Plan (BMP) produced for planning application purposes.

**Dimensions Established by the Guidelines, DPLH/WAPC for an On-site Shelter for a Vulnerable Tourism Land Use**

For the stated specific use, the Guidelines specify the maximum level of radiant heat exposure allowed. Consequently, the BMP produced for planning application purposes will state the minimum distances that are to be installed and maintained.

> *Note: Other than for the above use, the Guidelines do not establish the dimensions of the APZ for other buildings/structures that must be installed. They only establish that at least a BAL-29 dimensioned APZ should be the minimum that is installed and ensures that this is possible for the subject planning proposal. Consequently, the BMP can only indicate the separation distances corresponding to different levels of radiant heat exposure. Refer also to Appendix B1 in this BMP.*

**Dimensions Established by this BMP**

The required dimensions may be identified in this BMP when specific increased separation distances have been applied through the application of an outcomes-based assessment that requires this as an additional protection measure.

**Dimensions Established by the BCA (NCC 2022) for Certain Class 9 Vulnerable Use Buildings**

These separation distances are stated in the BCA in Specification 43 as either:

- Not less than the minimum distances specified in Table S43C2; or
- Those corresponding to radiant heat flux on exposed building elements not exceeding 10kW/m² from a justified design bushfire analysis; or
- Those justified as an outcome of a building performance solution.

The separation distances may be included in the BMP by the bushfire practitioner as additional information to inform proponents and decision makers. They are not addressed by the Guidelines and therefore not a required part of the bushfire assessments presented within a BMP for planning application purposes.

**Dimensions Established by a Local Government**

To satisfy certain local government requirements, required APZ dimensions may be stated in the notice issued annually by the relevant local government under s.33 of the Bushfires Act 1954. These may be greater than the dimensions applied by the above mechanisms. A maximum APZ dimension could also be applied by the LGA.

These separation distances may be included in the BMP for informative purposes, but they are not a requirement for a BMP submitted for planning application purposes in accordance with the Guidelines.

## B4: Vegetation Excluded from Classification – Ensure Continued Low Threat Status

**MAINTAINING THE LOW THREAT STATUS OF EXCLUDED VEGETATION**

When applying AS 3959:2018 BAL determination methodology, vegetation adjoining or adjacent to the subject site can be excluded from classification based on being a 'low bushfire threat'. To maintain this status, certain requirements must continue to be met in accordance with the below extract from AS3959:2018. Refer to the 'Classified Vegetation and Topography Map' for the relevant low threat areas associated with the subject site.

Determination of 'low threat' vegetation is based on factors such as - proximity to the subject site / small areas of vegetation / low flammability / higher moisture content / low fuel load.

Aside from a naturally occurring low fuel load, vegetation maintained in a minimal fuel condition through active management can be excluded. The associated key requisite is that the active management can be expected to continue in perpetuity, and this can be adequately justified.

Acceptable forms of justification typically involve supportable evidence or the existence of an enforceable mechanism. Examples of enforceable mechanisms include:

- Requirements established by a Section 33 (Bush Fires Act 1954) notice issued by a local government;
- An appropriate and enforceable agreement between relevant parties (which may involve additions to land titles); and
- For public open space or crown land, written evidence that the land manager e.g. local government or a State Government department, agrees to maintain the designated area of land in a low threat state in perpetuity.

**2.2.3.2** *Exclusions—Low threat vegetation and non-vegetated areas*

The following vegetation shall be excluded from a BAL assessment:

(a) Vegetation of any type that is more than 100 m from the site.

(b) Single areas of vegetation less than 1 ha in area and not within 100 m of other areas of vegetation being classified vegetation.

(c) Multiple areas of vegetation less than 0.25 ha in area and not within 20 m of the site, or each other or of other areas of vegetation being classified vegetation.

(d) Strips of vegetation less than 20 m in width (measured perpendicular to the elevation exposed to the strip of vegetation) regardless of length and not within 20 m of the site or each other, or other areas of vegetation being classified vegetation.

(e) Non-vegetated areas, that is, areas permanently cleared of vegetation, including waterways, exposed beaches, roads, footpaths, buildings and rocky outcrops.

(f) Vegetation regarded as low threat due to factors such as flammability, moisture content or fuel load. This includes grassland managed in a minimal fuel condition, mangroves and other saline wetlands, maintained lawns, golf courses (such as playing areas and fairways), maintained public reserves and parklands, sporting fields, vineyards, orchards, banana plantations, market gardens (and other non-curing crops), cultivated gardens, commercial nurseries, nature strips and windbreaks.

NOTES:

1 Minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bushfire attack (recognizable as short-cropped grass for example, to a nominal height of 100 mm).

2 A windbreak is considered a single row of trees used as a screen or to reduce the effect of wind on the leeward side of the trees.

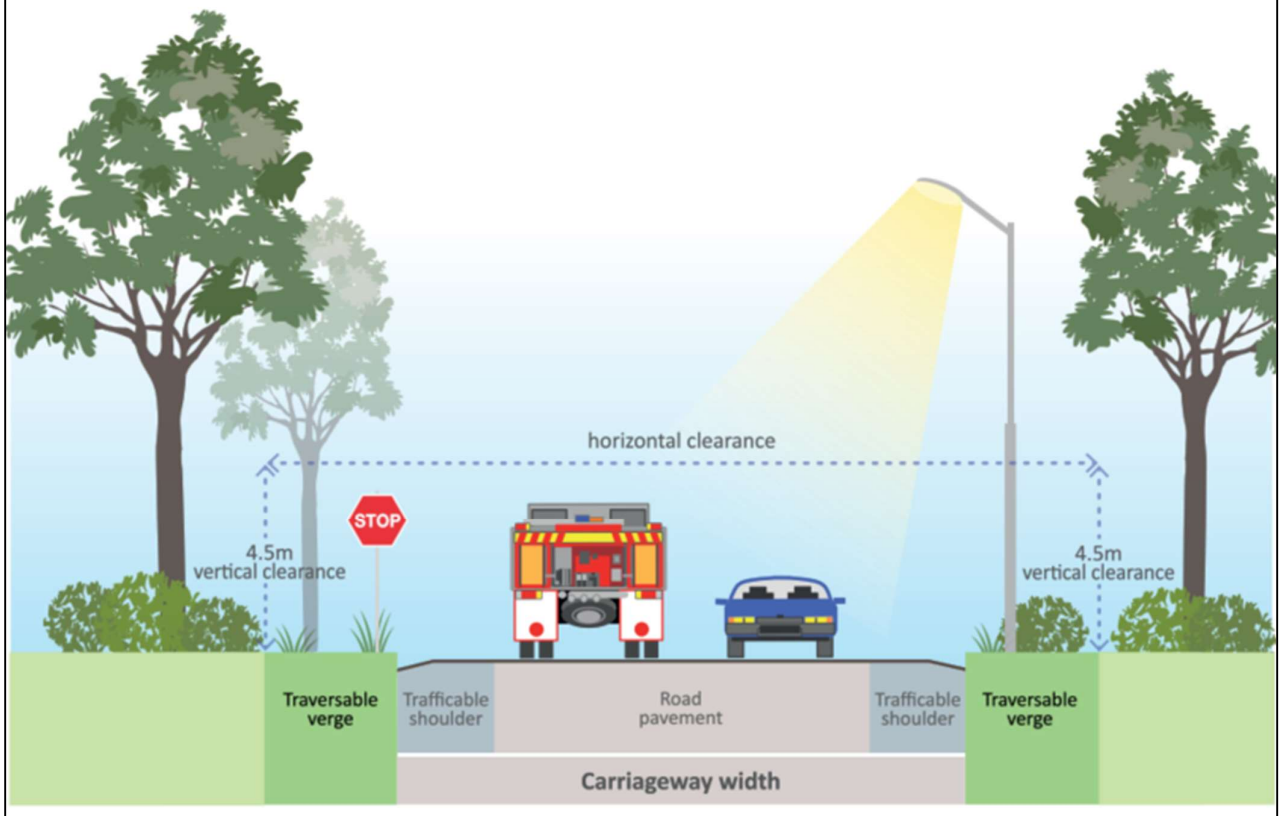
## APPENDIX C: GUIDANCE - TECHNICAL REQUIREMENTS FOR VEHICULAR ACCESS

The relevant technical requirements are established in the Planning for Bushfire Guidelines (DPLH/WAPC) (as amended), Appendix B3: Vehicular access and available online at Planning WA - SPP 3.7 Bushfire

The following excerpts are presented here as a quick reference to applicable terminology and design requirements applied in the assessment against the bushfire protection criteria, Element 3: Vehicular access in this BMP.

### C1: Road Component Terminology

Figure 26: Area encompassing horizontal clearance and vertical clearance




**Horizontal clearance:** The carriageway width (including the road pavement and trafficable shoulder) and traversable verge that provides for the movement and parking of vehicles and area required by emergency services to operate. Infrastructure and vegetation within the traversable verge should be frangible, however, non-frangible items can occur providing they do not restrict vehicular movement in the event of an emergency.

## C2: Vehicular Access Technical Requirements

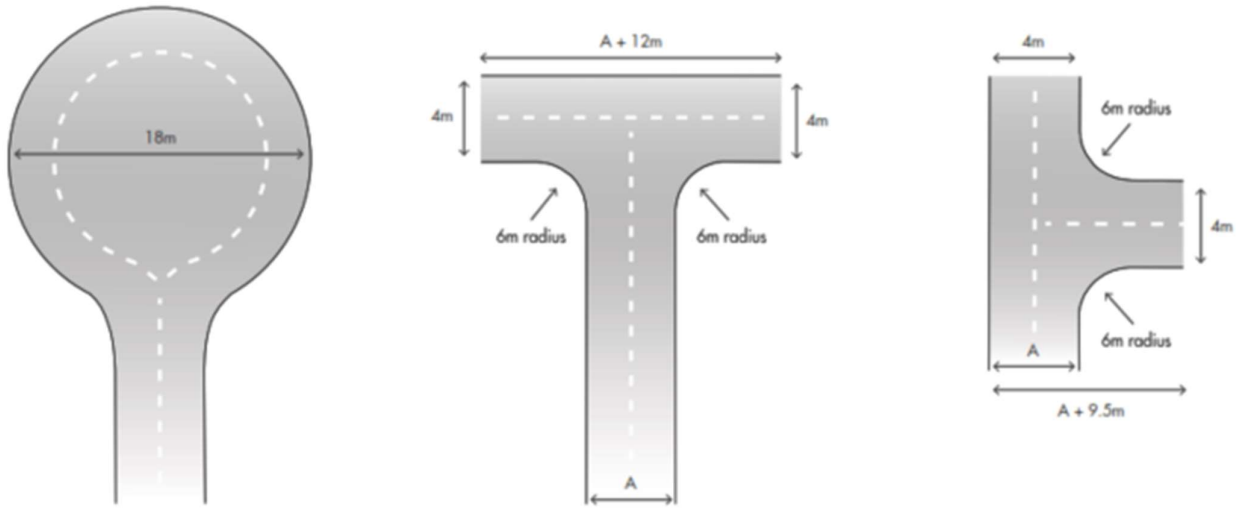
Table 10: Vehicular access technical requirements

| | 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.

Figure 30: Design requirements for a turn-around area



# APPENDIX D: GUIDANCE - TECHNICAL REQUIREMENTS FOR FIREFIGHTING WATER SUPPLY

The relevant technical requirements are established in the Planning for Bushfire Guidelines (DPLH/WAPC) (as amended), Appendix B4: Water supply and available online at Planning WA - SPP 3.7 Bushfire

The information provided in this appendix is additional to that provided in the Guidelines. It includes:

- For reticulated water supply, the hydrant location specifications established by the WA Water Corporation (Design Standard DS 63), as dependant on land use type and relevant to bushfire planning assessments (highlighted). Note: the maximum distance from a hydrant to the rear of a lot/building is generally interpreted as not applicable to large lot sizes where the maximum distance becomes an impractical limitation i.e., typically rural residential areas; and
- Images of example installations of acceptable water supply tanks and outlet fittings.

## D1: Hydrant Location in Reticulated Areas

WATER

**Design Standard DS 63**
**Water Reticulation Standard**

**2.2.1.5 Appurtenances**

c. Hydrants

Hydrants shall be screw-down hydrant with built-in isolation valve and installed only on DN100 or larger pipes. Hydrants shall be located:

- so that the maximum distance between a hydrant and the rear of a building envelope, (or in the absence of a building envelope the rear of the lot) shall be 120m;
- so that spacing (as measured by hose-run) between hydrants in non-residential or mixed use areas shall be maximized and no greater than 100m;
- so that spacing (as measured by hose-run)between hydrants in residential areas with lots per dwelling <10,000m$^2$ shall be maximized and no greater than 200m;
- so that spacing between hydrants (as measured by hose-run) in rural residential areas where minimum lots per dwelling is >10,000 m$^2$ (1ha) shall be maximized and no greater than 400m;
- centrally along the frontage of a lot to avoid being under driveways, unless the lot features a frontage 6m or less, in which case it shall be placed to the side opposite the driveway;
- at lots that have the widest frontage in the local area;
- where appropriate at the truncation of road junctions or intersections so that they can serve more than one street and can be readily located;
- on both sides of the major roads at staggered intervals where there are mains on both sides of the road;
- at major intersections on dual multi-lane roads, where two hydrants are to be sited on diagonally opposite corners;
- hydrants should be located at least 20m from traffic calming devices i.e. median slow points or chokers, chicanes, mini traffic circles, and intersection 'pop-outs' to ensure traffic is not impeded;
- in a position not less than 10m from any high voltage main electrical distribution equipment such as transformers and distribution boards, liquefied petroleum gas or other combustible storage
- directly on top of the main using a tee unless proved to be impractical

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## Joy Graeber

**To:** Felicity Coombe
**Subject:** RE: 24.034_96 Capel Drive Capel - Regional Open Space Enquiry

**From:** Jenni Johnston <Jenni.Johnston@dplh.wa.gov.au>
**Sent:** Tuesday, July 8, 2025 3:19 PM
**To:** Felicity Coombe <felicityc@DoepelMarsh.com.au>
**Cc:** Damien Agnew <Damien.Agnew@dplh.wa.gov.au>
**Subject:** RE: 24.034_96 Capel Drive Capel - Regional Open Space Enquiry

OFFICIAL

Good afternoon Felicity

I refer to your email below attention to Damien in my Property team.

I provide the following information in relation to Lot 28 and your email.

The whole of the property is in the current ownership of AJ Myles Holdings Pty Ltd – no part of the Lot is owned by the Western Australian Planning Commission (WAPC).

Compensation for Injurious Affection under section 180 of the Planning & Development Act was paid to the former owner in 2016 and a Notification is on the Certificate of Title. Interest Only Deposited plan 409171 depicts the land the subject of the compensation area which is the Regional Open Space (ROS) although it states Easement it is only an Interest (not any legal ownership).

The WAPC/DPLH does not manage the ROS portion as it is within the ownership of the current owners, nor has a Foreshore Management Plan been prepared by the WAPC. This is the responsibility of the current owners should it be required.

When the ROS comes into government ownership via purchase or ceding then the management would need to be determined – DPLH would see it as being the Shire of Capel.

In relation to confirming requirements for setbacks in relation to proposed buildings that will be adjacent to the ROS you would need to make enquiries with the Shire and DPLH Bunbury Office.

Kind regards

**Jenni Johnston**
Director Property | Heritage and Property Services
Department of Planning, Lands and Heritage
140 William Street, Perth WA 6000
wa.gov.au/dplh | 6551 9023 | 0435 583 440 |


The Department of Planning, Lands and Heritage acknowledges Aboriginal people as the traditional custodians of Western Australia. We pay our respects to the Ancestors and Elders, both past and present, and the ongoing connection between people, land, waters and community. We acknowledge those who continue to share knowledge, their traditions and culture to support our journey for reconciliation. In particular, we recognise land and cultural heritage as places that hold great significance for Aboriginal people.
Learn more about our Reconciliation Action Plan.



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**From:** Felicity Coombe <felicityc@DoepelMarsh.com.au>
**Sent:** Tuesday, 8 July 2025 12:05 PM
**To:** info <info@dplh.wa.gov.au>
**Cc:** WAPC Property <WAPCProperty@dplh.wa.gov.au>
**Subject:** 24.034_96 Capel Drive Capel - Regional Open Space Enquiry



Attention: DAMIEN

Hi Damien,
On behalf of the owners of Lot 28, 96 Capel Drive Capel, Doepel Marsh Architects have been engaged to prepare plans for a Development Application for a short stay and over 55 development on the site.
As per Deposited plan 409171, there is a Regional Open Space easement on the land that is under the responsibility of the WAPC. Are you able to assist in locating an existing Foreshore management plan that may be in use at the moment for this area of Capel River, and who is responsible for future management of this parcel of land. We would also like to confirm requirements for setbacks in relation to proposed buildings that will be adjacent to the ROS.

Kind Regards,

**Felicity Coombe**
B. Arch

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